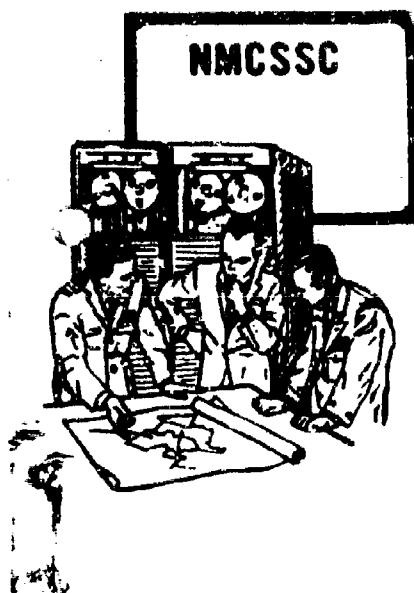


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AGENCY**

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AD 742788

VOLUME II, PART F  
29 FEBRUARY 1972

**THE NMCSSC  
QUICK-REACTING  
GENERAL WAR GAMING  
SYSTEM  
(QUICK)**

PLAN GENERATION SUBSYSTEM

**VOL. II - F E**  
**AD 742788**

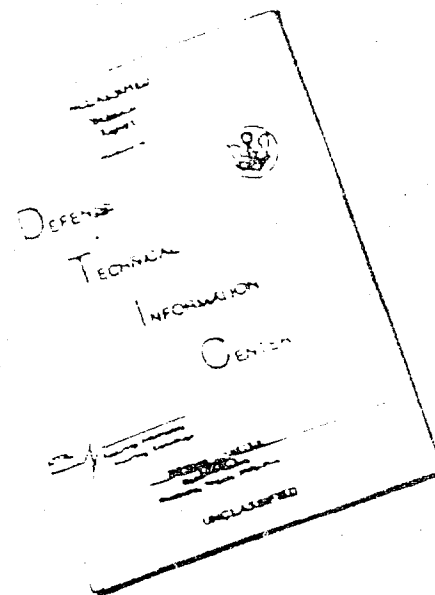
**PROGRAMMING SPECIFICATIONS  
MANUAL**

Reproduced by  
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DD FORM 1473

FORM 1473

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2802

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|---------------|--------|----|--------|----|--------|----|
|               | ROLE   | WT | ROLE   | WT | ROLE   | WT |
|               |        |    |        |    |        |    |



NATIONAL MILITARY COMMAND SYSTEM SUPPORT CENTER

Computer System Manual Number CSM PSM 9A-67

29 February 1972

THE NMCSSC QUICK-REACTING GENERAL WAR GAMING SYSTEM (QUICK)

Programming Specifications Manual

Volume II - Plan Generation Subsystem

Part F

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## ABSTRACT

The computerized Quick-Reacting General War Gaming System (QUICK) will accept input data, automatically generate global strategic nuclear war plans, simulate the planned events, and provide statistical output summaries. QUICK has been programmed in FORTRAN for use on the NMCSSC CDC 5800 computer system.

The QUICK Programming Specifications Manual (PSM) consists of three volumes: Volume I, Data Input Subsystem; Volume II, Plan Generation Subsystem; Volume III, Simulation and Data Output Subsystems. The Programming Specifications Manual complements the other QUICK Computer System Manuals to facilitate maintenance of the war gaming system. This volume, Volume II, provides the programmer/analyst with a technical description of the purpose, functions, general procedures, and programming techniques applicable to the programs of the Plan Generation Subsystem. This volume is in six parts: Parts A and B provide a description of the programs which make up the subsystem; Part C through F contain the associated program listings. Companion documents are:

1. GENERAL DESCRIPTION  
Computer System Manual CSM GD 9A-67  
A nontechnical description for senior management personnel
2. ANALYTICAL MANUAL  
Computer System Manual CSM AM 9A-67 (three volumes)  
Provides a description of the system methodology for the nonprogrammer analysts
3. USER'S MANUAL  
Computer System Manual CSM UM 9-67  
Provides detailed instructions for applications of the system
4. OPERATOR'S MANUAL  
Computer System Manual CSM OM 9A-67  
Provides instructions and procedures for the computer operators

11/26/71

```

PROGRAM PLNPLAN
  CSUBR   PLNPLAN 18A71E *****
  C      THIS PLNPLAN IS FOR THE 1971 NMCSSC VERSION OF THE QUICK SYSTEM *****
  C
  CUSE    MAX 16FE871 *****
  C      COMMON /MAX/ MAIRDEZ, MALERT, MASHTYP, MBMDRY, MCCREGN,
  C      1 MCLASS, MCNTHYS, MCGRR, MCGRTYP, MOPEN,
  C      2 MDEPNLG, MGRGUP, MPAYLSD, MRECGVR,
  C      3 MRECVLG, MREF, MHTLEG, MHTPI,
  C      4 MSPEMT, MTANKS, MIARCLS, MIARCOL, MTARCPX,
  C      5 MTARETS, MTARGET, MIARIND, MIARSEC, MTANTEI,
  C      6 MTARTYP, MTARVAL, MTELMOH, MTOTBAS,
  C      7 MTYPE, MVULN, MWEAPSP, MMDTPE, MZONEPT,
  C      8 MZONES, MIARPLC *****
  C      MAX *****
  C
  C      DATA ( MAIRDEZ =20 )
  C      DATA ( MALERT =2 )
  C      DATA ( MASHTYP =20 )
  C      DATA ( MBMDRY =200 )
  C      DATA ( MCCREGN =20 )
  C      DATA ( MCLASS =2 )
  C      DATA ( MCNTHYS = 250 )
  C      DATA ( MCGRR = 30 )
  C      DATA ( MCGRTYP =5 )
  C      DATA ( MOPEN =50 )
  C      DATA ( MDEPNLG =50 )
  C      DATA ( MGRGUP =200 )
  C      DATA ( MPAYLSD =40 )
  C      DATA ( MRECGVR =200 )
  C      DATA ( MRECVLG =60 )
  C      DATA ( MREF =20 )
  C      DATA ( MRILEG =200 )
  C      DATA ( MSPEMT =5 )
  C      DATA ( MTANKS =50 )
  C      DATA ( MIARCLS =15 )
  C      DATA ( MIARCOL =4000 )
  C      DATA ( MTARCPX =4000 )
  C      DATA ( MTARETS =100 )
  C      DATA ( MTARGET =5000 )
  C      DATA ( MTARIND =12000 )
  C      DATA ( MTARPLC =40 )
  C      DATA ( MTARSEC =4000 )
  C      DATA ( MTARTEL =500 )
  C      DATA ( MTARTYP =250 )
  C      DATA ( MTARVAL =2500 )
  C      DATA ( MTELMOH =40 )
  C      DATA ( MTOTBAS =150 )
  C      DATA ( MTYPE =80 )
  C      DATA ( MVULN =50 )
  C      DATA ( MWEAPSP =1000 )
  C      DATA ( MMDTPE =50 )
  C      DATA ( MZONEPT =200 )

```







11/24/71

```

1JY,DIST *****
GENU ASMARHAY *****
C USED BY FLTPNT,SNAPOUT,ADJUST *****
DATA(IDIS=10(0)),I(10HUT=10(0)) *****
CUSE BOUND ZUECTO *****
COMMON/BOUNDA,X1,Y1,X2,Y2,IZN,KR,YRENZ,NIZIT *****
GENU BCUAD *****
C USED BY ZONECRUS,BOUNDARY,SNAPOUT *****
CONTROL ZUECTO *****
CUSE COMMON/CONTROL,ICE,LSADE,NPLCT,ISZE,SCALE *****
CONTROL *****
C USED BY ZONECRUS,PLANIMIS,PLANTANK,SNAPOUT *****
C ICE=1 FOR EVENIAPE OUTPUT,2 FOR PLANIAPE OUTPUT,3 FOR SOTH *****
DATA(ICE=1) *****
CUSE CORCOUNT ZUECTO *****
COMMON/CORCOUNT/IN,KC,JM,LC *****
GENU CORCOUNT - *****
C USED BY SNAPOUT *****
DINGATA ZUECTO *****
COMMON/DINDATA/HUT(90),KPL(90),JTP(90),HLA(90),MLG(90),TZT(90), *****
IIZN(90),PAL(90),MMT,MPL *****
GENU DINDATA *****
C C USED BY ADJUST,ZONECRUS,SWITCHMT,DISTIME,PLANTANK,CLINDATA,SNAPOUT *****
CHKSUM,POST,DECCYADD *****
C C MGT TIME - FOR DETAILED HISTORY *****
C C KPL PLACE - FOR DETAILED HISTORY *****
C C JTP EVENT - FOR DETAILED HISTORY *****
C C HLA LAT - FOR DETAILED HISTORY *****
C C MLC LONG - FOR DETAILED HISTORY *****
C C MHT TOTAL NO LINES IN DETAILED PLAN(PLANNED AND ALTERNATES) *****
C C NPL NO OF PLANNED EVENTS *****
CUSE DINDATA2 ZUECTO *****
COMMON/DINDATA2/CHT(90),INH(90) *****
GENU DINDATA2 *****
C C USED BY DISTIME,PLANTANK,SNAPOUT,DECCYADD *****
C C GMT CUMULATIVE TIME FOR PRINT 3 *****
C C JMW WARHEAD INDEX FOR PRINT 3 *****
CUSE DISTC ZUECTO *****
COMMON/DISTC/DISTC(20) *****
GENU DISTC *****
C C USED BY DECCYADD,ADJUST *****
EVENTS ZUECTO *****
CUSE COMMON/EVENTS/LAUNW,LAUNB,LEMREFUEL,INSECTOR,LCLLATTR,LAUNASH *****
*LAUNOCGY,PLANDNG, LGMT,MISSATTR,LEUDCG,LABORT,LENTEHERF,LEAVEHEF, *****
*IGCHI,IGLCLR *****
GENU EVENTS *****
C C USED BY DISTIME,PLANTANK,ZONECRUS,SWITCHMT,DECCYADD,AUJUST,POST *****
DATA (LAUNH = 1) *****
** (LAUNB = 2) *****
** (LEREFUEL = #) *****
** (INSECTOR = 5) *****
** (LCLLATTR = 8) *****
** (MISSATTR = 9) *****
** (LABORT = 13) *****
** (LENTEHERF = 11) *****
** (LEAVEHEF = 12) *****

```

[illegible]

| C | ALERT            | ALERT STATUS                                                  | (ALERT=1, NONALERT=2)                 | 162800 |
|---|------------------|---------------------------------------------------------------|---------------------------------------|--------|
| C | ALT              | CURRENT ALTITUDE                                              | INDEXED INITIALLY 1 FOR HIGH ALTITUDE | 165500 |
| C | NCMS             | COUNTERMEASURE INDEX                                          |                                       | 166000 |
| C | MFL              | TOTAL NO. LINES IN HISTORY TABLE                              | PRIMARY * ALTERNATE                   | 167000 |
| C | MFL              | NUMBER OF LINES IN WEAPON TABLE                               |                                       | 167500 |
| C | MPLAN            | NUMBER OF PLANNED (PRIMARY) EVENTS                            |                                       | 170000 |
| C |                  | HISTORY TABLE                                                 |                                       | 170500 |
| C | TINCLINT         | TIME                                                          |                                       | 171000 |
| C | TINCLINT         | PLACE                                                         |                                       | 172000 |
| C | INDEINT          | EVENT                                                         |                                       | 173000 |
| C |                  | WEAPON TABLE                                                  |                                       | 173500 |
| C | WTYP(JMT)        | WEAPON TYPE                                                   |                                       | 174000 |
| C | XUGZ(JMT)        | X-COORDINATE, COMPLEX TARGET OFFSET(SOUTH NAUT. MILE)         |                                       | 175000 |
| C | YUGZ(JMT)        | Y-COORDINATE, COMPLEX TARGET OFFSET(SOUTH NAUT. MILE)         |                                       | 176000 |
| C | ZUGZ(JMT)        | Z-COORDINATE                                                  |                                       | 177000 |
| C | VARIABLES        | WITH NAMES CONTAINING #IDUM# ARE NOT USED BY PLNTPLAN         |                                       | 177500 |
| C | ICUTCLD          | LOFERT1                                                       |                                       | 178000 |
| C | COMMON/ICUTCLD   | ICUTCLD, KCCG, MYNCURCP, MYCRRRC, LPAYLOAD, LREF, LUPEN       |                                       | 1800   |
| 1 | SPDH             | IC, SPOLCG, JFCIC, NNAPG, IBJCGG(40), IBDESC(20), IBFSKC(20), |                                       | 2000   |
| 2 | IBCTG            | IC(1), IBFLG(120)                                             |                                       | 3000   |
| C | ICUTCLD          |                                                               |                                       | 178000 |
| C | USED BY SNAPOUT  | U, I, TIME, DECAYADU, PLANTANK                                |                                       | 179000 |
| C | IRF              | ZUECTO                                                        |                                       | 180000 |
| C | COMMON/IRF       | IRF, INFR                                                     |                                       | 1000   |
| C | IRF              |                                                               |                                       | 180000 |
| C | USED BY PLANTANK | SNAPOUT                                                       |                                       | 181000 |
| C | ITP              | ZUECTO                                                        |                                       | 182000 |
| C | COMMON/ITP       | ITP                                                           |                                       | 1000   |
| C | ITP              |                                                               |                                       | 182000 |
| C | USED BY PLANTANK | PLANTANK, SNAPOUT                                             |                                       | 183000 |
| C | KEYLENG          | ZUECTO                                                        |                                       | 184000 |
| C | COMMON/KEYLENG   | LCS, LIN, LDN, LINC, LTK, LMIS, LMC, LDRL                     |                                       | 1000   |
| C | KEYLENG          |                                                               |                                       | 184000 |
| C | USED BY PLANTANK | CLINDATA, SNAPOUT, PLANTANK                                   |                                       | 185000 |
| C | KEYS             | ZUECTO                                                        |                                       | 186000 |
| C | COMMON/KEYS      | KEYTOPEN, KEYDMA                                              |                                       | 1000   |
| C | USED BY PLNTPLAN | PLANTANK                                                      |                                       | 2000   |
| C | KEYS             |                                                               |                                       | 186000 |
| C | DATA             | (LCS=145)                                                     |                                       | 187000 |
| 1 | LIN              | (LIN=320)                                                     |                                       | 188000 |
| 1 | LDGN             | (722)                                                         |                                       | 189000 |
| 1 | LINC             | (194)                                                         |                                       | 190000 |
| 1 | LTK              | (12)                                                          |                                       | 191000 |
| C | DATA             | (LMIS=270)                                                    |                                       | 192000 |
| C | DATA             | (LMQ=144)                                                     |                                       | 193000 |
| C | DATA             | (LDRL = 12)                                                   |                                       | 194000 |
| C | LCS              | LENGTH OF OUTSORT RECORD                                      |                                       | 195000 |
| C | LIN              | LENGTH OF INDATA RECORD                                       |                                       | 196000 |
| C | LUN              | LENGTH OF COMMON DINDATA                                      |                                       | 197000 |
| C | LINC             | LENGTH OF COMMON/INDATA/EXCEPT FOR LAST ARRAY                 |                                       | 198000 |
| C | LTK              | LENGTH OF TANKER RECORD                                       |                                       | 199000 |
| C | LMIS             | LENGTH OF STAFFILE MISSILE RECORD                             |                                       | 200000 |
| C | LMQ              | NUMBER OF GOOD WOUNDS IN MISSILE INDATA                       |                                       | 201000 |
| C | LDRL             | LENGTH OF RECORD FOR NAVAL DBL EVENT                          |                                       | 202000 |
| C | LASL             | ZUECTO                                                        |                                       | 203000 |
| C | COMMON/LASL      | U1, V1, U2, V2, UAT, VAT, RASH, RLAT, RLONG                   |                                       | 1000   |

11/24/71

```

CEND      LAMP      *****
C          USED BY FLYPOINT,LAUNCH,SNAPCUT      203000
CUSE      MM        2DEC70      204000
          COMMON/PH/MMHINA(10),MMHAXA(10),MMHMIN(10),MMHMAX(10)
          MM        *****      205000
          USED BY SNAPCUT      1000
C          MM2      2DEC70      206000
CUSE      COMMON/PH2/MMHIN(2),MMHMAX(2)      207000
          MM2      *****      1000
C          MISCT      2DEC70      207000
CUSE      COMMON/MISCT/MISCT,MTARSCOT      208000
          MISCT      *****      209000
          MISCT      *****      1000
          USED BY PLANTHIS      209000
C          MISCT      NUMBER OF MISSILE BOOSTERS PROCESSED      210000
C          MTARSCOT      NUMBER OF MISSILE TARGETS PROCESSED      211000
CUSE      MRVFLG      18AG71E      212000
          COMMON /MRVFLG/ MRVFLG      212500
          MRVFLG      *****      1000
          DATA (MRVFLG = 0)      212500
          MYIDENT      2DEC70      212700
          COMMON/MYIDENT/MYIDENT      213000
          MYIDENT      *****      1000
          MYLABEL      16FEB71      213000
          COMMON /MYLABEL/ MYFORM,MYSECH,MYLENGTH,MYCOMM(5)      213500
          MYLABEL      *****      1000
          NOPRINT      2DEC70      213500
          COMMON/NOPRINT/NOPRINT      214000
          NOPRINT      *****      1000
          COUTSRT      16FEB71      214000
          COMMON/COUTSRT/COUTSRT      215000
          1,MYORCUP,MYCORR,INDVEM,INEF,IPDEN,IPAYLOAD,LNCHBASE,IITYP      2000
          2,BLAT,BLNG,NHAP,ISITYPE(10),CBLAT(10),CBLONG(10),DLAT(10),DLONG(10)      3000
          3),IBJEC(10),IBJES(10),IBJTSK(10),IBCTY(10),IBFLG(10),AIRGUT(10),      4000
          4,SUNVOUT(10),GOLCWI,GOLCWI2,GOLCWI3,SPULS,      4500
          5,SPDHI,RANGE,RANGERE,DELAY,IRG,ILRT,IDCHMBER,AVAILC,ANGDEC      5000
          /COUTSRT/ IS THE INPUT RECORD FROM STKFILE      7000
          COUTSRT      *****      215000
          USED BY DISTIME,FLYPOINT,SNAPCON,SNAPCUT,ADJUST,PLANTANK,PLANTHIS      216000
          ICUTSRT SORTY NO.      217000
          MYGROUP      GROUP INDEX      218000
          MYCORR      CORRIDCH INDEX      219000
          INDVEM      VEHICLE INDEX      220000
          INEF      REFUEL INDEX      221000
          IPDEN      DEPENDENTATION INDEX      222000
          IPAYLOAD      PAYLOAD INDEX      223000
          LNCHBASE      BASE INDEX      224000
          IITYP      ISITYPE      225000
          BLAT      BASE LATITUDE      226000
          BLNG      BASE LONGITUDE      227000
          NHAP      NUMBER OF HAPPENINGS (TARGETS)      228000
          ISITYPE      TYPE OF HAPPENING      229000
          CBLAT(INAP)      LATITUDE OF HAPPENING      230000
          CBLONG(INAP)      LONGITUDE OF HAPPENING      231000
          DLAT      TARGET OFF-SET IN DEGREES LAT      232000
          DLONG      TARGET OFF-SET IN DEGREES LONG      233000

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|      |                                                                  |        |
|------|------------------------------------------------------------------|--------|
| C    | IBUEC(SNAP/PLACE OF HAPPENING                                    | 234000 |
| C    | IDES TARGET DESIGNATOR                                           | 234100 |
| C    | IBTSK TASK CODE OF TARGET                                        | 234200 |
| C    | IBCTY COUNTRY CODE OF TARGET                                     | 234300 |
| C    | IBFLG FLAG OF TARGET                                             | 234400 |
| C    | ATTROUT LOCAL ATTRITION                                          | 234500 |
| C    | SURVOUT CUMULATIVE SURVIVAL PROBABILITY                          | 234600 |
| C    | GCLOW1 LOW ALTITUDE RANGE AVAILABLE FOR USE IN CORRIDOR          | 235000 |
| C    | GCLOW2 LOW ALTITUDE RANGE AVAILABLE FOR USE BEFORE FIRST TARGET  | 236000 |
| C    | GCLOW3 LOW ALTITUDE RANGE AVAILABLE FOR USE AFTER FIRST TARGET   | 237000 |
| C    | SPDLO SPEED AT LOW ALTITUDE                                      | 238000 |
| C    | SPDHI SPEED AT HIGH ALTITUDE                                     | 239000 |
| C    | RANGE RANGE OF VEHICLE                                           | 240000 |
| C    | RANGREF REFUELED RANGE OF VEHICLE                                | 241000 |
| C    | DELAY DELAY                                                      | 242000 |
| C    | IRG IREG                                                         | 243000 |
| C    | ILRT IALERT                                                      | 244000 |
| C    | IDBOMBER BOMBER IDENTIFICATION                                   | 244100 |
| C    | AVAILOR AVAILABLE LOW ALTITUDE RANGE                             | 244200 |
| C    | RNGDEC RANGE DECREMENT AT LOW ALTITUDE                           | 244300 |
| C    | POLITE POLITE 2DECTO *****                                       | 245000 |
| CUSE | COMMON/POLITE/S1,T1,S2,I2,FACTOR,SR,TR                           | 1000   |
| C    | POLITE *****                                                     | 245000 |
| C    | USED BY INTER,INTERC *****                                       | 246000 |
| C    | IO 16FEB71 *****                                                 | 247000 |
| CUSE | COMMON /10/ MCBLAT(50.4),MCBLON(50.4),INDBAS(50.4),INDCAP(50.4), | 1000   |
|      | DISTR(50.4),TOF(50.4)                                            | 2000   |
| C    | USED BY PLNTPLAN,PLANTANK *****                                  | 3000   |
| C    | IO *****                                                         | 247000 |
| CUSE | REF 2DECTO *****                                                 | 248000 |
| C    | COMMON/REF/NFLAT(50),NFLONG(50) *****                            | 1000   |
| C    | REF *****                                                        | 248000 |
| C    | USED BY PLANTANK *****                                           | 249000 |
| CUSE | RL 2DECTO *****                                                  | 250000 |
| C    | COMMON/RL/RL,RH *****                                            | 1000   |
| C    | RL *****                                                         | 250000 |
| C    | USED BY DECCYADD *****                                           | 251000 |
| CUSE | SNAPON 2DECTO *****                                              | 252000 |
| C    | COMMON/SNAPON/NAP(15) *****                                      | 1000   |
| C    | SNAPON *****                                                     | 252000 |
| C    | USED BY PLANTHIS,PLANTANK,SNAPCON,SNAPIT *****                   | 253000 |
| CUSE | SPASH 2DECTO *****                                               | 254000 |
| C    | COMMON/SPASH/SPASH *****                                         | 1000   |
| C    | SPASH *****                                                      | 254000 |
| C    | USED BY DISTIME,SNAPOUT *****                                    | 255000 |
| CUSE | TEMPC 2DECTO *****                                               | 256000 |
| C    | COMMON/TEMPC/DT(50),JT(50),TLN(50),LPL(50) *****                 | 1000   |
| C    | TEMPC *****                                                      | 256000 |
| CUSE | TWORO 2DECTO *****                                               | 257000 |
| C    | COMMON/TWORO/TWORO,ITWORO *****                                  | 1000   |
| C    | EQUIVALENCE(ITWORO,TWORO) *****                                  | 2000   |
| C    | TWORO *****                                                      | 257000 |
| CUSE | VICINITY 2DECTO *****                                            | 258000 |
| C    | COMMON/VICINITY/VMB,VMA,VLB,VLA,GBMIN *****                      | 1000   |
| C    | VICINITY *****                                                   | 252000 |
| C    | USED BY ADJUST *****                                             | 259000 |

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CUSE      WPNGRPX 16FEB71 *****
COMMON /WPNGRPX/ ITYPEX(200),IUBLX(200)
C          DIMENSION = NGROUP = MAX NUM WEAPON GROUPS
C          WPNGRPX *****
C          USED BY PLANTNIS,SNAPOUT
CUSE      WPNTYPEX 16FEB71 *****
COMMON /WPNTYPEX/ REL(80),IMTYPE(80),IFNCTN(80)
C          DIMENSION = MIPE = MAX NUM WEAPON TYPES
C          WPNTYPEX *****
C          USED BY PLANTNIS,SNAPOUT
CUSE      NAVAL 16FEB71 *****
COMMON /NAVAL/ NNAVAL,IUBL(200),PNAVAL(200),ISVX(6),LSIDBLBS
C          DATA (LSIDBLBS = 0)
C          NAVAL *****
C          USED BY PLNTPLAN AND PLANTNIS
C          1 2UECTO *****
COMMON /1/DELUIS(6),LPRIORTY(20),LMHT(90),NDCYRU(20),NPSLN,
+NURDCOYS
C          1 *****
C          USED BY DECOYAU,POSTLAUN
C          USED BY DECOYAU
C          7 20MAY71 *****
COMMON /7/ IINDYTK(60),TKRLAT(60),TKHLNG(60),IIRFTK(60),
+ NIKPSUN(60),NALTKN(60),TANSPD(60),IRULYALT(60),
+ TRULYNL(60),TKTGT(60),IITPK(60),THANGE(60)
C          7 *****
C          DATA (NMIST=80)
C          DATA (BASFILE(1)=8)
C          DATA (TCGMIN=0.25)
C          DATA (THB=0.25)
C          DATA (THA=0.033333333)
C          DATA (TLB=0.166666667)
C          DATA (TLA=0.05)
C          DATA (DISDECOY=50)
C          DATA (NREFMAX=4)
C          DATA (TANKERD=100)
C          DATA (NDUMCORR = 2)
C          DATA (NFASTX=23), (NFILEX=16)
C          DATA (NCCORR=60), (NASTAB=100), (NPAYLDX=100), (NDPENX=190)
C          DATA (NPLANTX=3)
C          NMISTX = LENGTH OF COMMON BLOCK MASTER
C          NFILEX = LENGTH OF COMMON BLOCK FILES
C          NCCORR = LENGTH OF COMMON BLOCK CORCHAR
C          NASTAB = LENGTH OF COMMON BLOCK ASMTABLE
C          NPAYLDX = LENGTH OF COMMON BLOCK PAYLOAD
C          NDPENX = LENGTH OF COMMON BLOCK DPENREF
C          NPLANTX = LENGTH OF COMMON BLOCK PLANTYPE
C          *****
C          NMIST=MAX,NC=LINES IN HISTORY TABLE
C          BASFILE MUST BE DATA SET
C          TCGMIN MINIMUM GLOW TIME IN HOURS

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C THE BOMBER CANT GOHI WITHIN THE HOURS BEFORE TARGET
C THE BOMBER CANT GOHI WITHIN THE HOURS AFTER TARGET
C TLB BOMBER CANT GOLOW WITHIN TLB HOURS BEFORE TARGET
C TLB BOMBER CANT GOLOW WITHIN TLB HOURS AFTER TARGET
C KHEFMAX MAXIMUM NO OF REFUEL AREAS
C TANKERRD RADIUS OF TANKER NEIGHBORHOOD
C NOUNCRR NUMBER OF DUMMY CORRIDORS (TAC AIR AND NAVAL AIR)
C DATA(4ZER0)=0
C DATA (RL=200)
C * (RM=400)
C DIMENSION DZ(50),JZ(50),TAT(50),TAN(50),LPZ(50)
C COMPANION OF /TEMPG/TLQHLA
C DIMENSION DISTREF(50)
C DISTREF DIMENSIONED TO NO CORRIDORS
C DIMENSION INMESS(12)
C DATA(INMESS=8HEVENTAPL,7H OPTION,1M ,8MPLANTAPE,7H OPTION,1M ,
C 18HEVENTAPE,8H/PLANTAP,8HE OPTION,8HEVENTAPE,8H/PLCOTSRI,8HY OPTION)
C DIMENSION LDMH(13),LDMHMT(3)
C DIMENSION ITSTORE(50)
C DIMENSION TSTORE(50)
C DIMENSION INDEAREG(20),INDEXEND(20)
C DIMENSION IDPCMK(50)
C IDPCMK SIZE = MAX NUM OF DEPEN POINTS
C TYPE LOGICAL IDPCMK
C EQUIVALENCE(ITSTORE,ITSTORE)
C EQUIVALENCE(M,MHT)
C EQUIVALENCE(MYCORM,IC)
C
C IPROCESS=0
C KEYDPEN=KEYMAKE(2,0,6)
C KEYBMX=KEYMAKE(2,6,6)
C INDEXRD=9999999
C CALL STORAGE
C CALL TIMEP(-1)
C CALL CHKSUM(0)
C CALL VPLNTPLA
C NPRINT = 1
C MYUENT = 8MPLNTPLAN
C CALL INITAPE
C MYIDENT=8H8ASFILE
C ITP=8ASFILE(1)
C CALL SETREAD
C ITSTORES = 8MNCV 70
C IF LINFORM .NE. ITSTORES) 51,53
C 51 PRINT 52, ITSTORES,INFORM
C 52 FORMAT (//1X,15(1H),5X,1JH WRONG BASFILE FORMAT, REQUESTED ,A8,
C 15H GGT ,A8)
C STOP
C READ BASFILE
C 53 CONTINUE
C CALL RUARRAY(IMUATE,MHASTA)
C CALL SKIP(545)
C CALL RUARRAY(ITUFILE(1),NFILEX)
C CALL RUARRAY(PLCLAT,NCORHXX)

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200 CONTINUE
    CALL SNAPCON
    CALL SNAPIT(1,1)
    CALL TIME(3)
    CALL SNAPIT(13,1)
    CALL SNAPIT(14,1)
    IC1FLG=0
    IF (NAP(14),EQ,3) 999,208
C
C      BLOCK 20 HAS END SENTINEL BEEN REACHED
C
208 IF (MYGRUP=MYGRUP) 209,209,999
C      GROUP GT MONOP TERMINATES BOMBER PLANS
209 IF (MYGRUP.EQ.MYGRUP) 201,210
210 MYGRUP=MYGRUP
    INDEX=ITYPEX(MYGRUP)
201 IF (MYCRR .LE. NOUMCRR) 204, 203
C
203 IF (MYCRR.EQ.MYCRR) 230,202
C      INITIALIZE PLAN FOR NEW CORRIDOR
C
204 MYCRR = MYCRR
    CBLAT(1)=FINDLAT=BLAT
    CBLONG(1)=FINDLON=BLONG
    CALL FINDZONE
    KZN = IFOUNDN
    GSGG = GCLOC1=0
    IREF=0
    GO TO 232
202 MYCRR=MYCRR
    KZN=PCZONE(1C)
    IM=IHAP(MYCRR)
    KC=KOUNT(1C)
    CALL SNAPIT(7,1)
230 GSGG=GCLOC1=GCLOC1
    ALTERNATE PLAN
    IF (INDEX.EQ.INDEXOLD) 231,232
231 MPL=MHT
    IALX = 2
    IF (GCLOC1.LI.0.) GO TO 235
234 I=1,NHAP
    J=NHAP+1
    IBJEC(J)=IRJEC(1)
    IBDESC(J)=IBDESC(1)
    IBTSKO(J)=IBTSKO(1)
    IBCTY(J)=IBCTY(1)
    IBFLG(J)=IBFLG(1)
234 CONTINUE
    NHAP=NHAP+1
    GO TO 299
235 MHT = MHT+1
    JTP(MHT) = LANDHQ
    HLA(MHT) = BLAT
    HLC(MHT) = BLONG
    KPL(MHT) = LNCBASE
    GO TO 800
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232 NPL=0
JALX = 1
MMIN(1)=MMIN(2)=1
MMAX(1)=MMAX(2)=1
KICK SORTIE COUNT
NSORTIES=NSORTIES+1
ICUTOLD=ICUTSHT
INDEXOLD=INDEX
MHT=0
IF (GCLC=1,LT,0,1236,240
236 GCLCX1=C.
C
C BLOCK 24 INITIALIZE PLAN
C INITIALIZE /INDATA/
240 CALL CLINDATA
C=HJAP(IOPEN)
INDATA = LSIDE
INBASE = LNCMBASE
INDV=INDVEH
ICLASS = 18CMBER
SPDMIC=SPDMI
SPULOC=SPULC
DELAYO = DELAY
IYPE = IYYP
INEG = IRG
IALERT = ILRT
LPAYLOAD=IPAYLOAD
NCMSBNCW(LPAYLOAD)
LREF=INEF
IUP(1)=IOP(2)=0
LOPEN = IOPEN
DC 241 I=1,NMAP
16JEC(1)=16JEC(1)
16DESC(1)=16DESC(1)
16TSK(1)=16TSK(1)
16CTYC(1)=16CTYC(1)
16FLG(1)=16FLG(1)
JFCTNO=IFACTN(INDX)
NMAP=NMAP
241 CONTINUE
KCKC=IASM(IPAYLOAD)
RASM=RANGEASM(KCKC)
SPASM=SPEEDASM(KCKC)
FIVE=SPDMIO.093333333
FIVE IS DIST TRAVELED IN 5 MINUTES
DC 2253 1=1,90
ILAUNDEC(1)=0
TIMELAUN(1)=0.0
LWHT(1)=0.
DISTORE(1,1)=0.0
DISTORE(1,2)=0.0
DISTORE(1,3)=0.0
2253 DISTORE(1,3)=0.0
6CHIN=IGCHIN*SPDMI
6CHIN IS MIN TIME A BOMBER SHOULD FLY LOW
VHB = THB*SPULC

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C      VHB VICINITY HIGH ALT BEFORE TARGET
VHA = TLA*SPOLC
VLB = TLA*SPUMI
VLA = TLA*SPUMI
CALL SNAPIT(8,1)

C      BLOCK 25 POST LAUNCH EVENT
C
C      250 MHT=MHT+1
JTP(MHT)=LAUNB
HLA(MHT)=SI*BLAT
HLC(MHT)=TI*BLONG
KPL(MHT)=LNCHBASE
ICJFLG=0
IF (MYCORR .LE. NOUNCORR) 2264, 2263
2264 IF (KZLN*LE.2)2260,2261
2260 ICJFLG=1
GO TO 2263
2261 MHT=MHT+1
JTP(MHT)=INSECTOR
HLA(MHT)=RLAT
HLC(MHT)=BLONG
KPL(MHT)=KZN
CALL POSTLAUN(5,MHT,1)
2263 CONTINUE
IN = IN-KC-1
C1 = S2 = MAPLAT(IN)
D1 = T2 = MAPLONG(IN)
DUST=DISIF(S1,I1,S2,I2)

C      BLOCK 26-- POST REFUEL EVENTS
C
C      IN=IRF=IREF
IF (IREF)254,299,280
COMPUTE BUDDY REFUEL POINT
254 DIS=DUST
IRFP=0
REFDIF=RANGEREFF-RANGE
251 IF (DIS.LE.REFDIF)255,256
255 FACTOR=(DIS-FIVE)/DIS
FACTOR=MAX1F(FACTOR,0.0)
GO TO 257
256 FACTOR=REFDIF/DIS
257 CALL INTERP
IRFP=0
IF (IR.LE.24)258,282
C      FIND REFUEL AREA
258 ASSIGN 259 TO LOCATE
CAX=SR $ OKY=TR
TKDIS=1E6
DC 2585 I=1,NTANKBAS
TKX=TKRLAT(I) $ TKY=TKRLONG(I) $ TKRG=IRANGE(I)
TKDIS=DISIF(SR,TR,TKX,TKY)
IF (TKDIS.LE.TKRG)2583,2581
2583 ITK8=0 $ GO TO 2586

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270 IF (NRF*GE*NMFX)271,272
271 DPREV=1E6 _5 GC TO 273
C TANKERD DEFINES REFUEL NEIGHBORHOOD
272 DPREV=TANKEMO
273 RFD=REFDIF*1.
274 GC 276 I=1,NRF
275 RFLAT=RFLAT(I)
RFLONG=RFLONG(I)
X=DISF(SI,I),RELAT(RFLONG,I)
IF (X.LE.RFDF)274,276
SK,TR IS BUOY POINT
C 274 Z=DISF(SK,TR),RELAT(RFLONG,I)
IF (Z.LT.DPREV)275,276
275 DPREV=Z
INF=1
276 CONTINUE
277 IF (IRF)277,278
277 SR=RFLAT(IRF)
TR=RFLONG(IRF)
GC TO 279
278 IF (NRF*GE*NMFX)279,278
279 RFD=RFDF * RFDF * U*1*REFUIF
GC TO 273
278 NRF=NRF+1
RFLAT(NRF)=SR
RFLONG(NRF)=TR
IRF=NRF
279 GC TO LOCATE
C
C LOCAL SUBROUTINE--IAHINE--COMPUTE ARRIVAL TIME
C WHEN NON=0, CL=BASE TO 1ST REFUEL-DISTANCE
C CR=LAST REFUEL TO CORRIDOR DIST
290 CP=DISF(SI,TR),SH,TR)
IF (INITSTNK.EQ.1)293,294
293 C=DISF(SR,TR),S2,T2)
DUST=C*CP*CH*CL
D=(CORRCHB-(C*CH))/SPDH1*DELATC
GC TO 295
294 D=(CP*CL)/SPDH1*DELATC
295 ANVLS(1,INCNT)=D
CSUBR PLNTPLAZ 1SMART1 *****
IAVLS(2,INCNT)=IRF
INCNT=INCNT+1
A=ARTIME(IRF)
IF (D.LT.A)291,292
291 ARTIME(IRF)=D
292 GC TO IARTIME
299 CONTINUE
IFLGDPEN=0
UC 2250 I=1,3
LOMHT(I)=0
2250 LOMHMT(I)=0
UC 2251 I=1,6
2251 DELOIS(I)=0.0
1SMOT1=C
1SMOT4=C
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LOWFLAG=0
OC 2252 I=1.20
LPRIORITY(I)=0
2252 MOCYHQ(I)=0
OC 2254 I=1.50
2254 TSTORE(I)=0.0
NUMDCOYS=NDECCOYS(IPAYLOAD)
IF(NMDCYS)2268,2269
2268 NUMDCOYS=NMDOYS
2269 CONTINUE
C
C BLOCK 27 INITIALIZE PLAN WITH RESPECT TO GCOLW RANGE
C
GCOLX2=GCOLW2
GCOLX3=GCOLW3
IF(GCOLX1.LT.GCOLX2)260,261
260 GCOLX2=GCOLX2+GCOLX1
GCOLX1=0.0
261 GCOLX=GCOLX2+GCOLX3
IF(GCOLX.LT.GCOLX2)262,263
262 GCOLX=GCOLX2+GCOLX3+0.0
263 CONTINUE
IF(GCOLX1=0)
NPSLN=0
KOST=1
IF (MYCCRN .LE. NOUNCCRN) 400, 300
C
C BLOCK 30 PROCESS PRECORRIDOR LEGS AND APPLY GCOLW 1
C
300 CONTINUE
CALL SNAPIT(7,1)
IF(GCOLX1)301,301,303
301 INF=1
IF(JAPTYPE(IH).EQ.1)333,304
C SET FLAG TO CONTINUE DECY COVERAGE PAST ORIGIN
333 IF(GCOLX1=1
GO TO 304
C APPLY GCOLW RANGE TO CORRIDOR
303 INF=0
C INITIALIZE OO LOOP
304 GCOL=GCOLX1
IUEL=1
JA=0
JDO=0
DC 310 JIN=1,KC
J1=JIN+JDC
JC=JIN+JIN-1
302 J1(J1)=LEGDCO
LPL(J1)=0
JAJA=JAPTYPE(JC)
JAJA=JAPTYPE(JC)
IF(JAJA)312,307
307 IF(JAJA.EQ.IUEL)308,309
312 IF(JIN)350,351
C NUMBER HIGH OVER ATTRITED AREA - ACCUMULATE DIST. FOR DECY COVERAGE
350 DELDIS(KOST)=DELDIS(KOST)+MAPDIST(JC)
GO TO 352

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C BOMBEN LOW OVER ATTRITTED AREA
351 ELDIS = MAPDIS(JC)
IF (ELDIS .LT. GCLC) 313,318
313 GCLC=GCLC-ELDIS
352 CONTINUE
IF (JAJA .EQ. (LOEL*3)) 314,309
314 IF (INF) 353,354
C END ATTRITTED AREA AT HIGH ALT. - STOP DECUY COVERAGE
353 LOHMT(KOST) = JI
KOST=KOST+1
GC TO 355
C END ATTRITTED AREA AT LOW ALT. - BOMBEN GOES HIGH
354 JT(JI) = LOHI
LOHMT(LOEL) = JI
355 IF (LOEL.LT.LMAX) 315,316
315 LOEL=LOEL+1
316 JA = 0
GC TO 309
C GC LOW RANGE EXPIRED - CALCULATE GC HIGH LOCATION
318 INF=1
IF (ELDIS.EQ.GCLC) 317,320
317 JT(JI)=LOHI
LOHMT(LOEL) = JI
GC TO 309
320 FACTOR=GCLC/ELDIS
SI=MAPLAT(JC-1)
TI=MAPLNG(JC-1)
S2=MAPLAT(JC)
T2=MAPLNG(JC)
CALL INTERP
LT(JI)=SI
TLN(JI)=T2
JT(JI)=LOHI
LOHMT(LOEL) = JI
JUC=JUC+1
JI=JI+1
JT(JI) = LEUDCV
LPL(JI) = 0
UELDIS(KDST)=ELDIS(KUST)*ELDIS-GCLC
GC TO 352
C BEGIN ATTRITTED AREA
308 JA=1
IF (INF) 309,391
C BOMBEN GOES LOW
391 JT(JI) = LOHI
309 TLT(JI)=MAPLAT(JC)
TLN(JI)=MAPLNG(JC)
310 CONTINUE
C
C BLOCK 31 POST COMBUDGH EVENTS
C
JADE=JUC*NC
JZ(1)=JT(1)
TAT(1)=TLT(1)
TAN(1)=TLN(1)
LPZ(1)=LPL(1)

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IZN=ZN
MZ=0
IDL=1
KDL = 1
DC 320 I=2-JADE
K=1-MZ
X2=TLT(I)
Y2=TLN(I)
330 CALL BOUNDARY
IF (IZN.EG.0) 332+331
331 MZ=MZ+1
TAT(K)=M
TAN(K)=YR
JZ(K)=INSECTOR
LPZ(K)=IZN
IZN=ZN
AL=XP
V=YP
K=K+1
GC TO 330
332 TAT(K)=I=K2
TAN(K)=Y=K2
JZ(K)=J(I)
LPZ(K)=PL(I)
IF (LDHMT(IDL).EQ.1) 360+361
360 LDHMT(IDL) = K
IDL = IDL+1
361 IF (LDHMT(KUL).EQ.1) 362+329
362 LDHMT(KUL)=K
KUL = KUL+1
329 CONTINUE
C POST INSECTOR AT CORRIDOR ENTRY IF NOT ZONE ZERO
IF (IZN.EG.0) 340+341
340 MZ=MZ+1
K=JZ+JADE
JZ(K)=INSECTOR
TAT(K)=I
TAN(K)=Y
LPZ(K)=IZN
341 CONTINUE
JADE=JADE+MZ
IDL = KEST-1
DC 395 I=1+J
J = 3-I+1
IF (LDHMT(J)) 396+395
395 CONTINUE
396 KUL = J
UC 342 I=1-JADE
K=JADE-I+1
LDHMT=1
IF (LDHMT(IDL).EQ.K) 370+371
370 LDHMT(IDL) = L
IF (IDL.EG.1) 371+374
374 IDL = IDL - 1
371 IF (LDHMT(KUL).EQ.K) 376+373
372 LDHMT(KUL) = L

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IF (KOL=EQ.1)373,375
375 KOL = KOL -1
373 CONTINUE
JTP(L)=JZ(K)
HLA(L)=STAT(K)
HLC(L)=TAN(K)
KPL(L)=LPZ(K)
392 CONTINUE
MMT=MT*JADE
MMIN(LALX)=MMT
DC 380 I=1,3
IF (LDMT(I))381,382
381 LIT = LDMT(I)
CALL POSTLAUN(5,LMT,1)
382 IF (LOHINT(I))383,380
383 LMT=LCHIMT(I)
CALL POSTLAUN(2,LMT,1)
380 CONTINUE
C
C BLOCK 4C ADJUST/GUTSHT/FCR ASM EVENTS
C
400 CONTINUE
IASMFLAG = 0
WRITE DEPEND COMM AS LAST POINT
CBLAT(NHAP)=HAPLAT(JH)
CBLONG(NHAP)=HAPLONG(JH)
IF (MYCCRN =LE- NOUNCCRN) 406, 402
C
WRITE PEN COMM AS FIRST POINT
402 CBLAT(1)=HAPLAT(IH)
CBLONG(1)=HAPLONG(IH)
406 DC 405 I=1,NHAP
IF (IBTYPE(I)=EQ.8H AIM ASM) 401,404
401 IASMFLAG = 1
IF ((RASP,LE.0.)OR.(SPASH,LE.0.))411,404
411 PRINT 412,PAYLOAD
412 FORMAT(10X,1YHNG,ASMS FOR PAYLOAD,14)
404 ALAT(I) = CBLAT(I)
ALCN(I) = CBLONG(I)
405 CONTINUE
IF (IASMFLAG)409,5000
C PASS 1--TEST ALL ASM POINTS
408 IFLY(I)=1
DC 410 I=2,NHAP
IFLY(I)=1
IBTYPE=IBTYPE(I)
IF (IBTYPE=EQ.8H AIM ASM)403,410
403 JAY=I-1
CBLAT(I)
VAT=ALCN(I)
CALL PHEFLY
PHEFLY GETS DIST FROM PREVIOUS NON ASM FLY POINT
IF (DIST.LT.NASH)407,410
407 IFLY(I)=0
410 CONTINUE
C PASS 2--TEST ASM FLY POINTS AND CALCULATE THEIR AIM POINTS

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IF (IDIST.LE.INASH;42;427
424 IF (J.EQ.1)427;425
425 J=J+1
IF (IFLY(J).EQ.1)423;424
427 IDIS(I)=J*10000 + IDIST
430 CONTINUE
CALL ORDER(IDIS,ICRU,NHAP)
CALL REORDER(ICRU,NHAP,7,IBJEC,IBTYPE,CBLAT,CBLONG,ALAT,ALON,IFLY)
CALL REORDER(ICRU,NHAP,3,ULAT,DLONG,DIS,O,O,U,Q)
CALL SNAPIT(6;1)
PASS 4--CALCULATE REST OF AIM POINTS
C
DC 440 I=2,NHAP
IF (IFLY(I).EQ.0)431;440
431 U=ALAT(I-1)
V=ALON(I-1)
UAT=ALAT(I)
VAT=ALON(I)
JAY=1
CALL PGSTFLY
ALAT(I)=RLAT
ALON(I)=RLONG
440 CONTINUE
CALL SNAPIT(6;1)
C
5000 CONTINUE
CALL ADJUST
IF (IG0000/800;500
C BLOCK 50 - APPLY GLOM2 BEGORE FIRST TARGET
C
500 CONTINUE
SET IZN AGAIN TO CORRIDOR ORIGIN. ZONE
LP5=0
IZN=IZN
LOWZONE = 0
X1=S1=ALAT(1)
Y1=T1=ALON(1)
INC=1
511 INC=INC+1
S2=ALAT(INC)
T2=ALON(INC)
LHT=HHT
IF (IBTYPE(INC).EQ.8H AIM ASM)519;513
519 IF ((S1.EQ.S2).AND.(T1.EQ.T2))512;513
C ASMS LAUNCHED FROM CORRIDOR ORIGIN
512 HHT=HHT+1
JTP(HHT)=LAUNASH
HLA(HHT)=ALAT(INC)
HLC(HHT)=ALON(INC)
KPL(HHT)=KOKO
HMT=HMT+1
JTP(HMT)=U
HLA(HMT)=CBLAT(INC)
HLC(HMT)=CBLONG(INC)
KPL(HMT)=IBJEC(INC)
PA(HMT)=REL(INDXI)*SUNVOUT(INC)*DBLX(MYGRGUPQ)
GO TO 511

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513 IF(INC.EQ.NMAP)5014,5013
5014 X2=X1
5015 Y2=Y1
CSUBR      PLNTPLA3 TSEPT1 *****
5013 ISTOROT=KOST-1
C INSERT ALT. CHANGES, POST TARGET AREA EVENTS, FIND ZONECROSSINGS.
C POSSIBLE DECGY LAUNCHES
DC 548 I=INC.NMAP
INK=1-1
IGTY=IGTYPE(I)
IF(I87Y.EQ.SMDEPEN)5153,5154
5153 IF(LGDPEN=1
5154 IF(FLGCLG)5101,5102
5101 KOST=ISTOROT
LP5=1
5102 IF(LOWFLAG)5124,5120,5110
5120 IF ((LP5.EQ.0) .AND. (MYCORN .LE. NDUMCORR)) 5200, 5201
5200 LP5=1
C POSSIBLE DECGY LAUNCH AT CORRIDOR ORIGIN
IF(JUTP(LMT).EQ.0)5202,5203
5202 LMT=LMT-1
5203 CONTINUE
CALL POSTLAUN(5,LMT,KUST)
5201 IF(ISTORELO.EQ.INK)5121,5122
5122 DELDIS(KOST)=DELDIS(KUST)+DISTC(LINK)
GC TO 5130
C INSERT GO LOW
5121 LOWFLAG=1
IF(LGCLG)0
LOWZONE = 1
C SEE SUBROUTINE ZONECROS FOR LOWZONE SETTINGS
X1=X1+ALAT(LINK)
Y1=Y1+ALON(LINK)
S2=ALAT(I)
T2=ALON(I)
FACTOR=FACTOR/DISTC(LINK)
CALL INTERP
X2=SR
Y2=TR
DELDIS(KOST)=DELDIS(KUST)+FACTOR
CALL ZONECROS
IF(LOWZONE.EQ.2)5124,5123
5124 X1 = X2
Y1 = Y2
X2 = ALAT(I)
Y2 = ALON(I)
LOWZONE=3
CALL ZONECROS
KOST = KOST+1
GC TO 5125
5123 CONTINUE
CALL POST17(SR,TR,0)
CALL POSTLAUN(2,MHT,1)
KOST=KOST+1
X1=X2

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Y1=Y2
GO TO 5135
5110 IF(ISTOREMI.EQ.INK)5111,5130
C INSERT GO HIGH
5111 X1=S1*ALAT(INK)
Y1=T1*ALON(INK)
X2=S2*ALAT(I)
Y2=T2*ALON(I)
5204 FACTOR=FACHI/DISTC(INK)
X2=SR
Y2=TR
CALL ZONECRCS
CALL POST17(SR,TR,0)
LCPLAGE=1
IF(1FLAGPEN.EQ.2)5155,5156
5156 IF((ISHGT4.EQ.1)5150,5151
5150 CALL POSTLAUN(7,MHT,KUST)
GO TO 5152
5151 CALL POSTLAUN(5,MHT,KUST)
5152 CONTINUE
5155 X1=X2
Y1=Y2
GO TO 5135
C POST EVENTS
5130 X1=ALAT(INK)
Y1=ALON(INK)
5135 X2=ALAT(I)
Y2=ALON(I)
IF(1BITY.EQ.5HULPEN)600,547
547 IF(1BITY.EQ.4HLAND)591,530
530 IF(1BITY.EQ.8HDL1VEPISL)599,529
529 CALL ZONECRCS
5125 CONTINUE
546 IF(1BITY.EQ.8HDKCP8CH)554,546
546 IF(1BITY.EQ.8H ALM ASM)560,548
554 IF(1C2FLAG)5141,5141,5140
5140 LMT=MHT+1
5143 IF((ISHGT))5147,5143
5143 CONTINUE
CALL POSTLAUN(1,LMT,I)
KUST=KUST+1
ISHGT=1
GO TO 5142
5147 CONTINUE
CALL POSTLAUN(9,LMT,I)
5142 CALL POSTB(CALAT(I),C2LONG(I),IBJEC(I))
IN=1
T2T(MHT)=DLAT(4K)
T2N(MHT)=OLONG(1K)
PA(MHT)=REL(INUXX)*SUNVCUT(1K)*UBLX(MYGRGUPC)
GO TO 548
5141 IF((ISHGT4)5142,5146
5146 LMT=MHT+1
CALL POSTLAUN(4,LMT,KUST)

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150074=1
KUST=KUST+1
CALL POSTLAUN(0,0,0,KUST)
GC TO 5142
500 MNT=MNT+1
  IK=1
  JIP(MNT)=LAUNASW
  MLC(MNT)=ALAT(IK)
  MLC(MNT)=ALON(IK)
  KPL(MNT)=KRCG
  TZ(MNT)=ULAT(IK)
  TZ(MNT)=ULON(IK)
  MNT=MNT+1
  JIP(MNT)=0
  PA(MNT)=HEL(INDAA)*SUNVOUT(IK)*UBLA(MYGROUP)
  MLC(MNT)=OBLAT(IK)
  MLC(MNT)=OBLON(IK)
  KPL(MNT)=IBJEC(IK)
540 CONTINUE
  C REFUEL ARCT
  541 MNT=MNT+1
  JIP(MNT)=LACRI
  KPL(MNT)=0
  DIST=0.5*STF(AL,Y1,X2,Y2)
  S1=X1
  T1=Y1
  S2=X2
  T2=Y2
  FACTOR=FIVE/DIST
  CALL INTERP
  MLC(MNT)=SR
  MLC(MNT)=TR
  DELDIS(KUST)=DELDIS(KUST)-DIST*(INK)*FIVE
  542 MMAX(LALA)=MM
  GC TO 620
  549 MNT=MNT+1
  JIP(MNT)=LACRI
  KPL(MNT)=0
  MLC(MNT)=X1
  MLC(MNT)=Y1
  GC TO 620
  C
  C BLOCK 60 POST OPEN EVENTS
  C
  600 CONTINUE
  DSTLGS=C
  CALL ZONECROS
  IF LGDPEN=1
    MMAX(LALA)=MNT+1
  IF (IGOLEFT) 601,605
  601 CALL POSTIT(X2,Y2,0)
  605 MNT = MNT + 1
  JIP(MNT)=INSECTOR
  MLC(MNT)=X2
  MLC(MNT)=Y2
  KPL(MNT)=0

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MHTDPN=MHT
MPI = 1
X1=X2
Y1=Y2

C
  LCMQD = LC - 1
  6051 LBJ = JH + MPI - 1
  S2 = X2 = MAPLAT(LBJ)
  T2 = Y2 = MAPLONG(LBJ)
  DISLAS=DISL=UISIF(X1,Y1,X2,Y2)
  IF(DIST)GOTO6060
  6050 DSTLGS=DSTLGS+DIST
  MHT = MHT+1
  HLA(MHT) = X1 = S1 = A2
  HLC(MHT) = Y1 = T1 = Y2
  JIP(MHT) = LEGUON
  KPL(MHT) = U
  6060 IF (IMPI.GE.LCMQD) GOTO607
  607 MPI = IMPI+1
  GO TO 6051
  610 CONTINUE
  MHT = MHT + 1
  JIP(MHT) = LANUMC
  C DISMAX IS MAXIMUM DISTANCE BOMBER CAN FLY AT HIGH ALT FROM LAST LEG
  DISMAX=(GCLG*AVAILGW)*(RNUDEC-1)*DISLAS
  IF (IDPCMK(IDPEN)*EQ.1)GOTO619
  619 DC 625 ARBAS=1.4
  IF (INDCAP(IDPEN,NRBAS)*EQ.0)GOTO621
  621 TCF(IDPEN,NRBAS)=(DISIR(IDPEN,NRBAS)*DSTLGS-DISLAS)/SPDHI
  625 CONTINUE
  626 IDPCMK(IDPEN)=1
  MABAS=1
  DC 530 ARBAS=2.4
  IF (IDCAP(IDPEN,NRBAS)*EQ.0)GOTO627
  627 IF (DISMAX.GE.IDISIR(IDPEN,NRBAS))GOTO615
  628 MABAS=NRBAS
  630 CONTINUE
  615 HLA(MHT) = HCLLAT(IDPEN,MABAS)
  HLC(MHT) = HCLONG(IDPEN,MABAS)
  KPL(MHT) = INDRAS(IDPEN,MABAS)
  CALL IPUT ( KEYDPN , MHTDPN , IUPEN , KPL )
  CALL IPUT ( KEYBAX , MHTDPN , MABAS , KPL )
  620 CONTINUE

C
C BLOCK 80 HEAD NEXT/OUTSRT/CONVERT LAST ONE
C
  800 CONTINUE
  IF(INDXRD*EQ.INDEXEND(IITABRT))GOTO8195,8196
  8195 IF(IITABRT*EQ.F*ABCRTR)GOTO8197,8198
  8197 CALL ABCRT
  8198 IITABRT = IITABRT+1
  IPROCESS=0
  8196 IIP=STNKFIL(1)
  CALL RDRARRY(IOUTSRT,LCS)
  IF (IDBCNBER*EQ.6)HCHMBER)GOTO816,817
  817 CALL PLANTMIS

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816 CONTINUE
818 IF ((INDEX(EG(1),INDEX(NU(1)),EQ,018192,8191
8191 INDEX=10000*MYGROUP+100*MYCORN+ICUTSMT
8194 IF ((INDEX(EG(1),INDEX(EG(1),8193,8194
8194 IF ((PROCESS(1),8192,8196
8193 PROCESS=1
8192 IF (MYGROUP=MYGROUP) 805,805,8801
8801 IF (MYCORN=LE, NUUMCORN) 844, 801
805 IF (INAPLE,2184,818
840 INDEX=10000*ICUTSMT+100*MYCORN+MYGROUP
      IF ((GOLD(1),0,AND,INDEX(EG(1),8193,8194) 80 TO 8180
      PRINT 194, MYGROUP,MYCORN,ICUTSMT
      GO TO 800
818 INDEX=10000*ICUTSMT+100*MYCORN+MYGROUP
8180 MMXMMX(IALA)
      IF (MYCORN=LE, NUUMCORN) 844,822
844 DUST=0.0
      GO TO 801
      IS THIS PLAN AN ALTERNATE
      822 IF (INDEX(EG(1),INDEX(NU(1),803,801
      THERE IS AN ALTERNATE FOLLOWING
      830 IF (MY(1,61,75) 810,814
      810 PRINT 901,MYGROUP,MYCORN,ICUTSMT
      PRINT 811
      811 FORMAT(20H HAS MORE THAN ONE ALTERNATE:
      812 DEL=0.0
      IF (INITSTK(EQ,1),820,814
      820 DEL=(CORSCMB-DUST)/SPUHC
      IF (DEL,61,0,0),815,814
      815 DEL=0.0
      814 MCT(1)=MCT(1)+DELAYC*DEL
      CALL SWITCHALT
      CALL DISTIME
      MKVC=MHT
      CALL DECCTAUD
      LKVC=MHT-MKVC
      CALL SNAPT(10,2)
      GO TO 200
      801 IF (INPL)813,802
      C      NO ALTERNATE PLAN
      802 DEL=0.0
      IF (INITSTK(EQ,1),809,809
      808 DEL=(CORSCMB-DUST)/SPUHC
      IF (DEL,61,0,0),824,809
      824 DEL=0.0
      809 MCT(1)=MCT(1)+DELAYC*DEL
      CALL SWITCHALT
      CALL DISTIME
      MKVC=MHT
      CALL DECCTAUD
      CALL SNAPT(10,2)
      GO TO 850
      THIS IS THE ALTERNATE
      C      813 CONTINUE
      CNT(INPL + 1) = CNT(3)

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C      TEST FOR ALTERNATE PLAN ABORT
C      IF ( GOGC .LT. 0 ) 807, 828
C      TEST FOR NUMBER OF REFUELS.
C      828 IF ( LREF .EQ. -5 ) 819, 803
C      HERE WE HAVE TWO REFUELS - SET CUM TIME TO SECOND REFUEL
C      819 CPT(INPL * 1) = CMT(4)
C      GO TO 803
C      ALTERNATE PLAN ABORTED. SET ALTERNATE MISSION TO RECOVER.
C      807 IF (LREF .EQ. -5) 831, 832
C      831 CPT(INPL * 1) = CMT(3) + MDI(3) + MDI(2)
C      GO TO 803
C      832 CPT(INPL * 1) = CMT(2) + MDI(2)
C      CALL SWITCHALT
C      CALL DISTIME
C      MKVC = MHI - LKVC
C      CALL DECAYADD
C      IF ( GOGC .LT. 0 ) 804, 806
C      ALTERNATE PLAN ABORTED
C      804 IF ( LREF .EQ. -5 ) 833, 834
C      833 MDI(INPL * 1) = MDI(2) + MDI(3)
C      GO TO 850
C      834 MDI(INPL * 1) = MDI(2)
C      GO TO 850
C      TEST NB OF REFUEL EVENTS
C      806 IF (LREF .EQ. -5) 835, 836
C      HERE TWO REFUELS
C      835 MDI(INPL * 1) = MDI(4)
C      GO TO 850
C      HERE ONE REFUEL
C      836 MDI(INPL * 1) = MDI(3)
C      C
C      C
C      WRITE DETAILED PLAN
C      850 CONTINUE
C      * * * INSERT DECAY LAUNCH * * *
C      KVC=0
C      LC=1
C      IF (INPL) 8065, 8066
C      8066 MCHMKVC
C      JFLAG=1
C      GO TO 8067
C      8065 MCHNPL-LKVC
C      JFLAG=0
C      8067 CONTINUE
C      ALS=SPULOG
C      RMS=SPDHIG
C      8030 CONTINUE
C      DTIME = RL/HLC
C      DTIME=RM/RMC
C      JC = LC
C      8072 CONTINUE
C      IF (ILAUNDEC(JC).EQ.0) 8001, 8002
C      8002 IF (ILAUNDEC(JC).LT.0) 8040, 8041
C      8041 IF (JTP(JC).EQ.0) 8003, 8004
C      POST LOW ALTITUDE DECAY LAUNCH - CALCULATE LOCATION
C      8040 UCCTIME = DTIME-MDI(JC)

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0022 JJC=KVC=1
    IF (JTPX(JJC).EQ.0) 8023,8024
0023 JJC=JJC-1
0024 CPTX(KVC)=CHIX(JJC)+HUTX(KVC)
0025 S1=HLAX(JJC)
    T1=HLGX(JJC)
    S2=HLA(JJC)
    T2=HLC(JJC)
    DIST=DISTF(S1,T1,S2,T2)
    FACTOR=DECUS1/DIST
    CALL INTERP
    HLAX(KVC)=S1
    HLGX(KVC)=T1
    JTPX(KVC)=LAUNUCOY
    I=HAX(KVC)=0
0002 CONTINUE
    L=HIX(KVC)=JC
0001 KVC=KVC+1
    HLTX(KVC)=HDT(JC)
    KPLX(KVC)=KPL(JC)
    JTPX(KVC)=JTP(JC)
    HLAX(KVC)=HLA(JC)
    HLGX(KVC)=HLG(JC)
    TZTX(KVC)=TZI(JC)
    TZNX(KVC)=TZN(JC)
    I=HAX(KVC)=I+H(JC)
    PAX(KVC)=PA(JC)
    CPTX(KVC)=CPT(JC)
0000 IF (JC.GE.PC) 8070,8071
0071 JC = JC+1
    GO TO 8072
0070 CONTINUE
    IF (JFLAG.EQ.0) 8031,8032
    C POST ALTERNATE PLAN
0031 JFLAG=1
    L=HPL+1
    MC=KVC+LKVC
    HLG=SPULC
    HNG=SPUHI
    GO TO 8030
0032 CONTINUE
    *****POST DELAY TERMINATION *****
    JF = 1
    JL = 0
    LAUNFLAG = 0
    SPUM=SPDHI
    KVC=0
    DC 8500 JVC=1,KVC
    IF (JTPX(JVC).EQ.IGCLC*) 8500,8811
0800 SPUM=SPBLCC
    GO TO 8503
0811 IF (JTPX(JVC).EQ.IGCHI) 8803,8802
0803 SPUM=SPDHI
    GO TO 8503
0802 CONTINUE

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PTN5.5

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IF (JTPX(JVC).EQ.ILAUNUCY)8501.8503
8501 IF (KPLX(JVC)8533.8504.8504
C- LOW ALTITUDE LAUNCH - NO TERMINATION REQUIRED
8533 KPLX(JVC) = -KPLX(JVC)
GO TO 8503
C HIGH ALTITUDE LAUNCH - MUST FIND TERMINATION LOCATION
8504 JC = LMT(JVC)
LAUNFLAG = 1
IF (DISTORE(JC.4).EQ.0.18505.8506
8505 ILAUN = KPLX(JVC)
JLAUN = ILAUN-1
IF (DISTORE(JC.1LAUN).EQ.0)STOKE(JC.1LAUN)18505.8508
C TWO TERMINATION EVENTS REQUIRED FOR ONE LAUNCH EVENT
8508 JL = JL+1
TSTORE(JL)=DISTORE(JC.1LAUN)/SPDMIC*MDTA(JVC)
JL = JL+1
ITSTORE(JL) = -1
JL = JL+1
TSTORE(JL)=DISTORE(JC.1LAUN)/SPDMIC*MDTA(JVC)
JL = JL+1
ITSTORE(JL) = -JLAUN
GO TO 8610
C ONE TERMINATION EVENT REQUIRED FOR ONE LAUNCH EVENT
8505 JL = JL+1
TSTORE(JL)=DISTORE(JC.1)/SPDMIC*MDTA(JVC)
JL = JL+1
ITSTORE(JL) = -KPLX(JVC)
8610 JLMIN2 = JL - 2
8611 ISECHK = 0
DO 8613 I = JF. JLMIN2. 2
IF (ITSTORE(I).LE. ITSTORE(I+2)) 8613. 8612
ISECHK = ITSTORE(I)
ITSTORE(I) = ITSTORE(I+2)
ITSTORE(I+2) = ISECHK
ISECHK = ITSTORE(I+1)
ITSTORE(I+1) = ITSTORE(I+3)
ITSTORE(I+3) = ISECHK
ISECHK = 1
8613 CONTINUE
IF (.ISECHK) 8611. 8615. 8611
8503 IF (LAUNFLAG)8555.8512
8555 CONTINUE
C SKIP ASM TARGET WHEN SUBTRACTING TIME
8625 KVC=KVC+1
8625 GO TO 8602
8615 CONTINUE
DO 8556 I=JF. JL+2
8556 TSTORE(I)=ITSTORE(I)-MDTA(JVC)
8509 IF (TSTORE(JF))8511.8512
C INSENT DECAY TERMINATION EVENT
8511 KVC = KVC+1
MDT(KVC) = MDTA(JVC)*ITSTORE(JF)
8622 DECDIST=MDT(KVC)*SPDM
JVC=KVC-1
IF (JTP(JVC).EQ. 0) 8627.8626

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8627 JVC=JVC-1
8628 S1=HLA(JVC)
      T1=HLC(JVC)
      CMT(KVC)=CMT(JVC)+HUI(KVC)
      S2 = HLA(JVC)
      T2 = HLC(JVC)
      CIST = CIST(S1,T1,S2,T2)
      FACTOR = DECUISY/DIST
      CALL INTERP
      HLA(KVC) = S1
      HLC(KVC) = T1
      MUTA(JVC) = -TSTORE(JF)
      KPL(KVC)=TSTORE(JF+1)
      JTP(KVC) = LAUNDCY
      IMH(KVC)=0
      JF = JF+2
      IF (TSTORE(JF)) 8511,85+5,8512
      IF (JF,GT,JL) 8500-8511
      C ALL DECYS CURRENTLY LAUNCHED HAVE BEEN TERMINATED
      8512 KVC = KVC+1
      IF (JTP(KVC)+EQ,INSECTON,AND,KPLA(JVC),GT,63)+CH.
      1 JTPA(JVC)=0,LAUNCHRT)) 8601, 8602
      8601 IF (TSTORE(JF)) 8602,8602+8603
      C INSERT ALL REMAINING DECY TERMINATIONS BEFORE END OF PLAN
      8603 CONTINUE
      MUTA(KVC)=MUTA(JVC)
      KPLA(JVC) = 0
      KPL(KVC)=TSTORE(JF+1)
      JTP(KVC)=LAUNDCY
      HLA(KVC)=HLA(JVC)
      HLC(KVC)=HLC(JVC)
      IMH(KVC)=0
      CMT(KVC)=CMTA(JVC)
      KVC=KVC+1
      JF=JF+2
      LAUNFLAG=0
      GO TO 8601
      C POST CURRENT EVENT
      8602 CONTINUE
      MUTA(KVC) = MUTA(JVC)
      KPL(KVC) = KPLA(JVC)
      JTP(KVC) = JTPA(JVC)
      HLA(KVC) = HLA(JVC)
      HLC(KVC) = HLC(JVC)
      TLT(KVC) = TLT(JVC)
      TZN(KVC) = TZN(JVC)
      IMH(KVC) = IMHA(JVC)
      PAK(KVC) = PAX(JVC)
      CMT(KVC) = CMTA(JVC)
      8500 CONTINUE
      CALL SNAPIT(3+1)
      IF (ICE,LE,1) 900,8990
      8990 NIG=0
      C
      UC 9991 I=1,NHAPC
      COUNT NUMBER OF TARGETS IN PLAN

```





```

IVC=1
IRFABORT=1
IINC(1)=MUT(1)
INOP(1)=KPL(1)
INDE(1)=JTP(1)
DC 941 JC=2,MHT
JTPJC=JTP(JC)
903 IF (JTPJC.EQ.LCCLATH) 915,904
904 IF (JTPJC.EQ.LAUNASH) 914,905
905 IF (JTPJC.EQ.LCHM) GC TO 9125
IF (JTPJC.EQ.LVCLM) 913,906
906 IF (JTPJC.EQ.LEGCG) 914,9100
9100 IF (JTPJC.EQ.LANDHC) 9101,910
9101 IF ((JTPJC-LANDHC) * (JTPJC-LABORT)) 940,910,940
912 MUT(JC+1)=MUT(JC+1)+MUT(JC)
GC TO 940
9125 KPL(JC) = 1
913 JTP(JC)=LCHM
GC TO 910
914 JMW=JMW+1
IATP(JMW)=IWAHA
GC TO 918
915 JMW=JMW+1
IF (NBS) 917,917,916
916 NBS=NBS+1
IATP(JMW)=IWAH1
GC TO 918
917 IATP(JMW)=IWAH2
XDGZ,YDGZ ARE IN 50THS OF A NAUTICAL MILE
918 XDGZ(JMW) =3000.*TZT(JC)
YDGZ(JMW) =3000.*TZN(JC)*COSF(TZT(JC)/57.2957795)
ZDGZ(JMW)=0
910 IF (IVC.GE.MHIST) 902,941
921 IVC=IVC+1
IINC(IVC)=MUT(JC)
INOP(IVC)=KPL(JC)
INDE(IVC)=JTP(JC)
IF (IRFABORT) 930,940
930 IF ((JTPJC.EQ.INSECTOR.AND.KPL(JC).GT.63).OR.(JTPJC.EQ.LABORT))
*922,940
922 NPLAN=IVC
IRFABORT=0
NBS=NBS
940 JTPJC=JTPJC
941 CONTINUE
GC TO 908
902 PRINT 907,MYGROUP,MYCONRO,ICUTOLD
907 FORMAT (/,'14MPLAN FOR GROUP,14,24,8MCONRIDCH,10,2X
1,5HSORTY,16)
PRINT 911
911 FORMAT(17H EXCEEDS 80 LINES)
COUNTX=ICOUNTAS+1
GC TO 200
908 MFL=IVC
IF (NPLAN) 920,919
919 NPLAN=MFL

```

```

920 MNT=JMW
   ITP = EVENTAPE
   IF (IDBL(MYHQUPO) .GT. 0) .AND. (INBASE .NE. LSTOBL5) 931, 932
931 LSTOBL5 = INBASE
   DC 933 I = 1, 6
   ISVX(I) = ISVY(I)
933 ISV(11) = 0
   INDV = IDBL(MYHQUPO)
   IDUM2(1) = SNAVAL
   ITWORD = LOBL
   CALL WRNCRD
   CALL WRARRAY(INDATA, LOBL)
   DC 934 I = 1, 6
   ISVX(I) = ISVY(I)
932 FILAST = PKRAY(MYHQUPO)
   ITWORD = 26
   CALL WRNCRD
   CALL WRARRAY (INDATA, 26)
   CALL WRARRAY (INC,MFL)
   CALL WRARRAY (IND,MFL)
   CALL WRARRAY (INDE,MFL)
   CALL WRARRAY (INTYP,MNT)
   CALL WRARRAY (ADGZ, MNT)
   CALL WRARRAY (YDGZ, MNT)
   CALL WRARRAY (ZDGZ, MNT)
   CALL SNAPIT(2,1)
   CALL SNAPIT(12,1)
   GC TO 200

C
C
999 CONTINUE
   CALL PLANTANK
   CALL TIMEP(4)
   PRINT 990, NSCHTIES
990 FORMAT(/10X,10,2X,22#BOMBER PLANS PROCESSED//)
997 PRINT 997, MISC1, MTHGCT
   1,9HTARGETS//)
   PRINT 990,ICOUNTXS
9900 FORMAT(2X,10,22# PLANS EXCEED 80 LINES)
C
   WRITE DUMMY LAST PLAN
   ILAST=4*PLAST
   GC TO(991,992,993)ICE
991 CALL CLINDATA
   ILAST=4*PLAST
   INDATA=ISIDE
   ITP=EVENTAPE
   NWORDS=0
   ITWORD=NRCDROS
   CALL WRNCRD
   CALL WRARRAY(INDBAS,400)
   CALL WRARRAY(ITCF,200)
   ITP=EVENTAPE S CALL TERMTAPE
992 ITP=STKFL(1)
   CALL TERMTAPE

```

285000  
286000  
287000  
288000  
289000  
290000  
291000  
292000  
293000  
294000  
295000  
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298000  
299000  
299200  
299400  
299600  
299800  
300000  
300200  
300400  
300600  
300800  
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321000  
322000  
323000  
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328000  
329000  
330000  
331000  
332000  
333000  
333050

BLOCK 100 -- PROGRAM TERMINATION

```

ITP=MSLTIME(1)
CALL TERMTAPE
ITP=QASFILE(1)
CALL TERMTAPE
      REMIND ALL
      GC TO(998,999,999,ICE
994 ILAST=HLAST
    WHITE(PLANTAPE) (MZEND,I=1,24),ILAST)
    END FILE PLANTAPE
    WHITE(PLANTAPE,980),NRF
    WHITE(PLANTAPE,981) (RPLAT(1),NFLONG(1),I=1,NRF)
    END FILE PLANTAPE
    REMIND PLANTAPE
996 CALL PRNTAB
    PRINT 993
993 FORMAT(1H1)
    CALL CMKSUM(2)
980 FORMAT(5X,I2)
981 FORMAT(5X,F10.6,5X,F10.6)
    CALL TIMEWE(5)
    CALL TIMEWE(1)
    WHITE(44,7777)
    PRINT 7777
7777 FORMAT ('41H ***** PROCESSOR PLNTPLAN COMPLETED *****')
    IF (MRVFLG) GC TO 985
    MYIDENT = THIMPALOC
    GC TO 987
985 MYIDENT = THALOCGRP
987 CALL DEACTIV
    STOP
    END

```

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333100
333200
333300
333400
334000
336000
337000
337500
338000
339000
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341000
342000
343000
344000
345000
346000
347000
348000
349000
350000
351000
352000
353000
353100
353200
353300
353400
353500
354000
355000

```

5.4TS PLNTPLAN

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

IOENT PLNTPLAN

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| PLNTPLAN | IOENT | PLNTPLAN |
|----------|-------|----------|
| MAX      | 11333 |          |
| PLNTTYPE | 01564 |          |
| DPENREF  | 00047 |          |
| 00276    | 00003 |          |
| 00020    | 00276 |          |
| ASMTABLE | 00144 |          |
| 01131    | 00144 |          |
| CONRCHAH | 00020 |          |
| FILES    | 00027 |          |
| MASTER   | 00027 |          |
| 9        | 07304 |          |
| 8        | 00144 |          |
| ARTIME   | 04147 |          |
| ASMAHAY  | 00064 |          |
| SGUND    | 00011 |          |
| CONTROL  | 00005 |          |
| CONCUNT  | 00004 |          |
| DINDATA  | 11322 |          |
| DINDATA2 | 00264 |          |
| DISTC    | 00024 |          |
| EVENTS   | 00020 |          |
| FILEBEL  | 00014 |          |
| FINDZONE | 00003 |          |
| HILC     | 00006 |          |
| ICLASS   | 00002 |          |
| IDP      | 00002 |          |
| IFLGUPEN | 00003 |          |
| IWQ      | 00001 |          |
| INDATA   | 00500 |          |
| ICUTOLD  | 00157 |          |
| INF      | 00002 |          |
| IIP      | 00001 |          |
| KEYLENG  | 00010 |          |
| KEYS     | 00002 |          |
| LASH     | 00011 |          |
| MH       | 00026 |          |
| MH2      | 00004 |          |
| MISC1    | 00002 |          |
| MRVFL    | 00001 |          |
| MYIDENT  | 00001 |          |
| MYLABEL  | 00010 |          |
| NCPRIOT  | 00001 |          |
| OUTSHI   | 00221 |          |
| POLIE    | 00007 |          |
| IO       | 02260 |          |
| REF      | 00144 |          |
| RL       | 00002 |          |
| SNAPON   | 00017 |          |
| SPASH    | 00001 |          |
| TEMPO    | 00372 |          |
| TOROU    | 00001 |          |
| VICINITY | 00005 |          |
| WPNRPA   | 00020 |          |
| WPNTPKX  | 00360 |          |

00630  
00212  
01320

NAVAL  
1  
7

## EXTERNAL SYMBOLS

QBQENTRY  
TREND.  
QBUSTOPS  
QBULU040  
Q1410100  
QBULU040  
QBUDICT.  
KEYMAKE  
STORAGE  
TIME  
CHRSUM  
VPLNPLA  
INITAPE  
SETHRAD  
RDARRAY  
SKIP  
RLWCHU  
INITANK  
SNAPCON  
LNCUATA  
SEIKITE  
SNAPIT  
PLANIMIS  
FINDZONE  
CLINATA  
POSTLAUN  
DISTP  
INTERP  
POST4  
BOUNDARY  
PREFLY1  
PREFLY2  
POSTFLY  
CHUER  
REGRUEH  
ADJUST  
ZONECHOS  
POST17  
POST18  
IPUT  
ASORI  
SMICMALT  
DISTIME  
DECCYADD  
WMCND  
WRARNAY  
PLANTANK  
TEMTAPE  
PHNTAB  
DEACTIV  
MAXIF  
CUSF

5.4TS PLNPLAN

EFT.  
REM.  
TSH.  
STH.  
STB.  
QNSINGL.

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| 5.ATS  | PLNTPLAN |       | 11/24/71 | EO    | 0     | PAGE NO. | 4     |
|--------|----------|-------|----------|-------|-------|----------|-------|
| P11102 | A        | 03522 | 03523    |       |       |          |       |
| X00051 | ABORT    | 00064 |          |       |       |          |       |
| X00044 | ADJUST   | 04776 |          |       |       |          |       |
| C00000 | ALAT     | 04404 | 04404    | 04517 | 04574 | 04574    | 04605 |
|        |          | 04605 | 04640    | 04743 | 04747 | 04747    | 04763 |
|        |          | 04763 | 05007    | 05045 | 05163 | 05172    | 05172 |
|        |          | 03224 | 05225    | 05355 | 05362 | 05362    | 05514 |
|        |          | 05514 |          |       |       |          |       |
| C00012 | ALCCGRP  |       |          |       |       |          |       |
| C00006 | ALCCTAN  | 04406 | 04406    | 04521 | 04577 | 04577    | 04607 |
| C00012 | ALON     | 04607 | 04642    | 04745 | 04751 | 04751    | 04765 |
|        |          | 04765 | 05012    | 05166 | 05174 | 05174    | 05174 |
|        |          | 05226 | 05227    | 05357 | 05364 | 05364    | 05516 |
|        |          | 05516 |          |       |       |          |       |
| C00000 | ARTIME   | 02063 | 03521    | 03527 |       |          |       |
| C00227 | ARVLS    | 02071 | 03511    |       |       |          |       |
| C00416 | ATTRCGRH |       |          |       |       |          |       |
| C00160 | ATTRCUT  |       |          |       |       |          |       |
| C00776 | ATTRPRE  |       |          |       |       |          |       |
| C00454 | ATTRSUPP |       |          |       |       |          |       |
| C00217 | AVAILCM  | 05752 | 05753    |       |       |          |       |
| C00002 | BASFILE  | 04037 | 04037    | 03041 | 03226 | 03226    | 03306 |
| C00011 | BLAT     | 03347 | 03347    | 03043 | 03351 | 03351    | 03351 |
|        |          | 04502 | 04502    |       |       |          |       |
| C00012 | BLONG    | 04103 |          |       |       |          |       |
| X00036 | BOUNDARY |       |          |       |       |          |       |
| C03434 | BPLAT    |       |          |       |       |          |       |
| C03124 | BPLINK   | 02013 |          |       |       |          |       |
| C03744 | BPLONG   |       |          |       |       |          |       |
| C04254 | BPZONE   |       |          |       |       |          |       |
| P11103 | C        | 03336 | 03473    |       |       |          |       |
| P11104 | CL       | 03063 | 03231    |       |       |          |       |
| C00074 | CEPASP   |       |          |       |       |          |       |
| X00013 | CMKSUM   | 01617 | 10003    |       |       |          |       |
| P11105 | CL       | 03310 | 03340    |       |       |          |       |
| X00031 | CLINDATA | 02640 | 10453    |       |       |          |       |
| C00000 | CMT      | 00254 | 06255    | 06344 | 06346 | 06346    | 06356 |
|        |          | 00356 | 06362    | 06365 | 06367 | 06372    | 06605 |
|        |          | 06051 | 06761    | 07246 | 07251 | 07360    | 07413 |
|        |          | 07413 | 07545    | 07723 | 07723 | 07723    | 07723 |
|        |          | 06605 | 06624    | 06624 | 06670 | 06762    | 06763 |
| C02772 | CMTX     | 07356 | 07357    | 06670 | 06670 | 06673    | 06763 |
|        |          | 07356 | 07357    | 06670 | 06670 | 06673    | 06763 |
| P10700 | CNVRT1   | 01655 | 01657    | 02136 | 02137 | 02140    | 02142 |
|        |          | 02143 | 02203    | 02241 | 02244 | 02245    | 02365 |
|        |          | 02366 | 02406    | 02410 | 02410 | 02410    | 02335 |
|        |          | 03236 | 03237    | 03237 | 03237 | 03237    | 03235 |
|        |          | 07450 | 07452    | 07456 | 07463 | 07465    | 07466 |
|        |          | 07470 | 07472    | 07476 | 07477 | 07503    | 07507 |
|        |          | 07511 | 07513    | 07534 | 07536 | 07540    | 07542 |
|        |          | 07544 | 07546    | 07575 | 07577 | 07625    | 07626 |
|        |          | 07631 | 07632    | 07640 | 07642 | 07646    | 07655 |
|        |          | 07651 | 07652    | 07656 | 07661 | 07665    | 07710 |
|        |          | 07712 | 07713    | 07716 | 07720 | 07757    | 07760 |



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ST. PETERS

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|        |          |       |  |  |  |  |  |  |  |
|--------|----------|-------|--|--|--|--|--|--|--|
| P07555 | GG00015. | 07521 |  |  |  |  |  |  |  |
| P07602 | GG00016. | 07566 |  |  |  |  |  |  |  |
| P07616 | GG00017. | 07610 |  |  |  |  |  |  |  |
| P07670 | GG00020. | 07616 |  |  |  |  |  |  |  |
| P07676 | GG00021. | 07670 |  |  |  |  |  |  |  |
| P07733 | GG00022. | 07676 |  |  |  |  |  |  |  |
| P07741 | GG00023. | 07733 |  |  |  |  |  |  |  |
| P07766 | GG00024. | 07751 |  |  |  |  |  |  |  |
| P10233 | GG00025. | 10221 |  |  |  |  |  |  |  |
| P10241 | GG00026. | 10233 |  |  |  |  |  |  |  |
| P10424 | GG00027. | 10414 |  |  |  |  |  |  |  |
| P10435 | GG00030. | 10424 |  |  |  |  |  |  |  |
| P10445 | GG00031. | 10435 |  |  |  |  |  |  |  |
| P10554 | GG00032. | 10535 |  |  |  |  |  |  |  |
| P10567 | GG00033. | 10557 |  |  |  |  |  |  |  |
| P10612 | GG00034. | 10570 |  |  |  |  |  |  |  |
| P10631 | GG00035. | 10623 |  |  |  |  |  |  |  |
| P10653 | GG00036. | 10645 |  |  |  |  |  |  |  |
| P10661 | GG00037. | 10653 |  |  |  |  |  |  |  |
| P11132 | GG00038. | 02513 |  |  |  |  |  |  |  |
| P11132 | GG00039. | 03655 |  |  |  |  |  |  |  |
| P11132 | GG00040. | 03764 |  |  |  |  |  |  |  |
| P11132 | GG00041. | 02534 |  |  |  |  |  |  |  |
| P11132 | GG00042. | 03603 |  |  |  |  |  |  |  |
| P11132 | GG00043. | 03605 |  |  |  |  |  |  |  |
| P11132 | GG00044. | 03616 |  |  |  |  |  |  |  |
| P11132 | GG00045. | 02512 |  |  |  |  |  |  |  |
| P11132 | GG00046. | 03604 |  |  |  |  |  |  |  |
| P11132 | GG00047. | 03606 |  |  |  |  |  |  |  |
| P11132 | GG00048. | 02768 |  |  |  |  |  |  |  |
| P11132 | GG00049. | 03711 |  |  |  |  |  |  |  |
| P11132 | GG00050. | 03060 |  |  |  |  |  |  |  |
| P11132 | GG00051. | 04343 |  |  |  |  |  |  |  |
| P11132 | GG00052. | 03063 |  |  |  |  |  |  |  |
| P11132 | GG00053. | 04345 |  |  |  |  |  |  |  |
| P11132 | GG00054. | 04525 |  |  |  |  |  |  |  |
| P11132 | GG00055. | 04550 |  |  |  |  |  |  |  |
| P11132 | GG00056. | 04553 |  |  |  |  |  |  |  |
| P11132 | GG00057. | 04556 |  |  |  |  |  |  |  |
| P11132 | GG00058. | 04559 |  |  |  |  |  |  |  |
| P11132 | GG00059. | 04562 |  |  |  |  |  |  |  |
| P11132 | GG00060. | 04565 |  |  |  |  |  |  |  |
| P11132 | GG00061. | 04568 |  |  |  |  |  |  |  |
| P11132 | GG00062. | 04571 |  |  |  |  |  |  |  |
| P11132 | GG00063. | 04574 |  |  |  |  |  |  |  |
| P11132 | GG00064. | 04577 |  |  |  |  |  |  |  |
| P11132 | GG00065. | 04580 |  |  |  |  |  |  |  |
| P11132 | GG00066. | 04583 |  |  |  |  |  |  |  |
| P11132 | GG00067. | 04586 |  |  |  |  |  |  |  |
| P11132 | GG00068. | 04589 |  |  |  |  |  |  |  |
| P11132 | GG00069. | 04592 |  |  |  |  |  |  |  |
| P11132 | GG00070. | 04595 |  |  |  |  |  |  |  |
| P11132 | GG00071. | 04598 |  |  |  |  |  |  |  |
| P11132 | GG00072. | 04601 |  |  |  |  |  |  |  |
| P11132 | GG00073. | 04604 |  |  |  |  |  |  |  |
| P11132 | GG00074. | 04607 |  |  |  |  |  |  |  |
| P11132 | GG00075. | 04610 |  |  |  |  |  |  |  |
| P11132 | GG00076. | 04613 |  |  |  |  |  |  |  |
| P11132 | GG00077. | 04616 |  |  |  |  |  |  |  |
| P11132 | GG00078. | 04619 |  |  |  |  |  |  |  |
| P11132 | GG00079. | 04622 |  |  |  |  |  |  |  |
| P11132 | GG00080. | 04625 |  |  |  |  |  |  |  |
| P11132 | GG00081. | 04628 |  |  |  |  |  |  |  |
| P11132 | GG00082. | 04631 |  |  |  |  |  |  |  |
| P11132 | GG00083. | 04634 |  |  |  |  |  |  |  |
| P11132 | GG00084. | 04637 |  |  |  |  |  |  |  |
| P11132 | GG00085. | 04640 |  |  |  |  |  |  |  |
| P11132 | GG00086. | 04643 |  |  |  |  |  |  |  |
| P11132 | GG00087. | 04646 |  |  |  |  |  |  |  |
| P11132 | GG00088. | 04649 |  |  |  |  |  |  |  |
| P11132 | GG00089. | 04652 |  |  |  |  |  |  |  |
| P11132 | GG00090. | 04655 |  |  |  |  |  |  |  |
| P11132 | GG00091. | 04658 |  |  |  |  |  |  |  |
| P11132 | GG00092. | 04661 |  |  |  |  |  |  |  |
| P11132 | GG00093. | 04664 |  |  |  |  |  |  |  |
| P11132 | GG00094. | 04667 |  |  |  |  |  |  |  |
| P11132 | GG00095. | 04670 |  |  |  |  |  |  |  |
| P11132 | GG00096. | 04673 |  |  |  |  |  |  |  |
| P11132 | GG00097. | 04676 |  |  |  |  |  |  |  |
| P11132 | GG00098. | 04679 |  |  |  |  |  |  |  |
| P11132 | GG00099. | 04682 |  |  |  |  |  |  |  |
| P11132 | GG00100. | 04685 |  |  |  |  |  |  |  |
| P11132 | GG00101. | 04688 |  |  |  |  |  |  |  |
| P11132 | GG00102. | 04691 |  |  |  |  |  |  |  |
| P11132 | GG00103. | 04694 |  |  |  |  |  |  |  |
| P11132 | GG00104. | 04697 |  |  |  |  |  |  |  |
| P11132 | GG00105. | 04700 |  |  |  |  |  |  |  |
| P11132 | GG00106. | 04703 |  |  |  |  |  |  |  |
| P11132 | GG00107. | 04706 |  |  |  |  |  |  |  |
| P11132 | GG00108. | 04709 |  |  |  |  |  |  |  |
| P11132 | GG00109. | 04712 |  |  |  |  |  |  |  |
| P11132 | GG00110. | 04715 |  |  |  |  |  |  |  |
| P11132 | GG00111. | 04718 |  |  |  |  |  |  |  |
| P11132 | GG00112. | 04721 |  |  |  |  |  |  |  |
| P11132 | GG00113. | 04724 |  |  |  |  |  |  |  |
| P11132 | GG00114. | 04727 |  |  |  |  |  |  |  |
| P11132 | GG00115. | 04730 |  |  |  |  |  |  |  |
| P11132 | GG00116. | 04733 |  |  |  |  |  |  |  |
| P11132 | GG00117. | 04736 |  |  |  |  |  |  |  |
| P11132 | GG00118. | 04739 |  |  |  |  |  |  |  |
| P11132 | GG00119. | 04742 |  |  |  |  |  |  |  |
| P11132 | GG00120. | 04745 |  |  |  |  |  |  |  |
| P11132 | GG00121. | 04748 |  |  |  |  |  |  |  |
| P11132 | GG00122. | 04751 |  |  |  |  |  |  |  |
| P11132 | GG00123. | 04754 |  |  |  |  |  |  |  |
| P11132 | GG00124. | 04757 |  |  |  |  |  |  |  |
| P11132 | GG00125. | 04760 |  |  |  |  |  |  |  |
| P11132 | GG00126. | 04763 |  |  |  |  |  |  |  |
| P11132 | GG00127. | 04766 |  |  |  |  |  |  |  |
| P11132 | GG00128. | 04769 |  |  |  |  |  |  |  |
| P11132 | GG00129. | 04772 |  |  |  |  |  |  |  |
| P11132 | GG00130. | 04775 |  |  |  |  |  |  |  |
| P11132 | GG00131. | 04778 |  |  |  |  |  |  |  |
| P11132 | GG00132. | 04781 |  |  |  |  |  |  |  |
| P11132 | GG00133. | 04784 |  |  |  |  |  |  |  |
| P11132 | GG00134. | 04787 |  |  |  |  |  |  |  |
| P11132 | GG00135. | 04790 |  |  |  |  |  |  |  |
| P11132 | GG00136. | 04793 |  |  |  |  |  |  |  |
| P11132 | GG00137. | 04796 |  |  |  |  |  |  |  |
| P11132 | GG00138. | 04799 |  |  |  |  |  |  |  |
| P11132 | GG00139. | 04802 |  |  |  |  |  |  |  |
| P11132 | GG00140. | 04805 |  |  |  |  |  |  |  |
| P11132 | GG00141. | 04808 |  |  |  |  |  |  |  |
| P11132 | GG00142. | 04811 |  |  |  |  |  |  |  |
| P11132 | GG00143. | 04814 |  |  |  |  |  |  |  |
| P11132 | GG00144. | 04817 |  |  |  |  |  |  |  |
| P11132 | GG00145. | 04820 |  |  |  |  |  |  |  |
| P11132 | GG00146. | 04823 |  |  |  |  |  |  |  |
| P11132 | GG00147. | 04826 |  |  |  |  |  |  |  |
| P11132 | GG00148. | 04829 |  |  |  |  |  |  |  |
| P11132 | GG00149. | 04832 |  |  |  |  |  |  |  |
| P11132 | GG00150. | 04835 |  |  |  |  |  |  |  |
| P11132 | GG00151. | 04838 |  |  |  |  |  |  |  |
| P11132 | GG00152. | 04841 |  |  |  |  |  |  |  |
| P11132 | GG00153. | 04844 |  |  |  |  |  |  |  |
| P11132 | GG00154. | 04847 |  |  |  |  |  |  |  |
| P11132 | GG00155. | 04850 |  |  |  |  |  |  |  |
| P11132 | GG00156. | 04853 |  |  |  |  |  |  |  |
| P11132 | GG00157. | 04856 |  |  |  |  |  |  |  |
| P11132 | GG00158. | 04859 |  |  |  |  |  |  |  |
| P11132 | GG00159. | 04862 |  |  |  |  |  |  |  |
| P11132 | GG00160. | 04865 |  |  |  |  |  |  |  |
| P11132 | GG00161. | 04868 |  |  |  |  |  |  |  |
| P11132 | GG00162. | 04871 |  |  |  |  |  |  |  |
| P11132 | GG00163. | 04874 |  |  |  |  |  |  |  |
| P11132 | GG00164. | 04877 |  |  |  |  |  |  |  |
| P11132 | GG00165. | 04880 |  |  |  |  |  |  |  |
| P11132 | GG00166. | 04883 |  |  |  |  |  |  |  |
| P11132 | GG00167. | 04886 |  |  |  |  |  |  |  |
| P11132 | GG00168. | 04889 |  |  |  |  |  |  |  |
| P11132 | GG00169. | 04892 |  |  |  |  |  |  |  |
| P11132 | GG00170. | 04895 |  |  |  |  |  |  |  |
| P11132 | GG00171. | 04898 |  |  |  |  |  |  |  |
| P11132 | GG00172. | 04901 |  |  |  |  |  |  |  |
| P11132 | GG00173. | 04904 |  |  |  |  |  |  |  |
| P11132 | GG00174. | 04907 |  |  |  |  |  |  |  |
| P11132 | GG00175. | 04910 |  |  |  |  |  |  |  |
| P11132 | GG00176. | 04913 |  |  |  |  |  |  |  |
| P11132 | GG00177. | 04916 |  |  |  |  |  |  |  |
| P11132 | GG00178. | 04919 |  |  |  |  |  |  |  |
| P11132 |          |       |  |  |  |  |  |  |  |

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|------------------|----------|-------|----------|-------|
| CO0013 IALEPT    | 05732    | 05732 | 06617    | 06704 |
| CO0017 IALT      | 06704    | 07244 | 07354    | 07401 |
| PI1141 IALA      | 05733    | 06645 | 06777    | 06750 |
| CO0227 IARTIME   | 07714    | 07353 | 07400    | 02235 |
| CO0310 IASH      | 07255    | 02123 | 02153    | 02751 |
| PI1143 IASFLAG   | 02446    | 02557 | 02707    | 03545 |
| CO0134 IBCTY     | 02242    | 02555 | 03422    | 04153 |
| CO0107 IBCTYC    | 03170    | 03371 | 04071    | 04145 |
| CO0110 IBUES     | 03560    | 03570 | 04074    | 04303 |
| CO0037 IBDESC    | 03567    | 04222 | 04233    | 04431 |
|                  | 04161    | 04219 | 04402    | 04424 |
|                  | 04310    | 04325 | 04407    | 04504 |
|                  | 04434    | 04452 | 04471    | 04762 |
|                  | 04610    | 04630 | 04701    | 05445 |
|                  | 04766    | 05105 | 05271    | 05507 |
|                  | 05545    | 07201 | 07435    | 07556 |
|                  | 07561    | 07201 | 07742    | 07773 |
|                  | 07775    | 10320 | 10545    | 10604 |
|                  | 02673    | 07465 |          | 10760 |
| CO00146 IBFLG    | 02542    | 04273 | 05615    |       |
| CO0133 IBFLGC    | 02517    | 04526 | 05642    |       |
| CO0076 IBJEC     | 03323    | 03530 |          |       |
| CO0013 IBJECG    | 02073    | 03513 |          |       |
| CO0000 IBMBR     | 02736    |       |          |       |
| CO0122 IBTSK     | 04331    | 04413 |          |       |
| CO0063 IBTSKC    | 02507    | 02724 |          |       |
| PI1144 IBTY      | 02570    | 02725 |          |       |
| CO0014 IBTYPE    | 02570    | 02720 |          |       |
| PI1145 IBTYPE1   | 02503    | 02721 |          |       |
| CO0002 IC        | 02504    | 02721 |          |       |
| CO0002 ICIFLG    | 02565    | 02721 |          |       |
| PI1146 ICC       | 02572    | 02726 |          |       |
| CO0000 ICE       | 02571    | 02727 |          |       |
|                  | 02572    | 02727 |          |       |
|                  | 02561    | 02716 |          |       |
|                  | 02562    | 02717 |          |       |
|                  | 02636    | 02656 |          |       |
|                  | 02505    | 02722 |          |       |
|                  | 02506    | 02723 |          |       |
|                  | 05111    | 05371 |          |       |
|                  | 04354    | 04426 |          |       |
|                  | 04427    | 04484 |          |       |
|                  | 04520    | 03024 |          |       |
|                  | 02446    | 03024 |          |       |
|                  | 02316    | 02112 |          |       |
|                  | 00636    | 02112 |          |       |
|                  | 07423    | 10001 |          |       |
|                  | 02657    | 10242 |          |       |
|                  | 02333    | 10256 |          |       |
|                  | 01775    | 10300 |          |       |
|                  | 02340    | 05100 |          |       |
|                  | 03657    | 03724 |          |       |
| CO0011 ICCLASS   | 04620    | 04621 |          |       |
| PI1147 ICCOUNTAS | 04662    | 04676 |          |       |
| CO0001 IDBL      | 04144    | 04150 |          |       |
| CO0216 IDMBR     | 02703    | 02704 |          |       |
| PI1150 IDEL      |          |       |          |       |
| CO0001 IDENFAC   |          |       |          |       |
| CO0036 IDIS      |          |       |          |       |
| PI1151 IDIST     |          |       |          |       |
| PI1152 IDL       |          |       |          |       |
| CO0000 IDP       |          |       |          |       |

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|--------------------|---------|-------|-------|----------|-------|
| P00033 IDPCMK      | 02325   | 05102 | 06010 | 06006    | 10757 |
| C00005 IDPEN       | 02643   | 02704 | 06005 | 06047    | 10757 |
| C00003 IDUM1       | 10303   | 10303 |       |          |       |
| C00006 IDUM2       |         |       |       |          |       |
| C00014 IDUM3       |         |       |       |          |       |
| C00021 IDUM4       |         |       |       |          |       |
| C00031 IDUM5       |         |       |       |          |       |
| C00072 IDUM6       |         |       |       |          |       |
| C00026 IDUMA       |         |       |       |          |       |
| P11153 IDX         | 04377   | 04554 | 04562 | 04564    |       |
| P00364 IF0000C1.   |         |       |       |          |       |
| P00035 IF0000C2.   |         |       |       |          |       |
| P00127 IF0000C3.   |         |       |       |          |       |
| P00153 IF0000C4.   |         |       |       |          |       |
| P07324 IF0000C5.   |         |       |       |          |       |
| P07330 IF0000C6.   |         |       |       |          |       |
| P10176 IF0000C7.   |         |       |       |          |       |
| P10202 IF0000C8.   |         |       |       |          |       |
| P10261 IF0000C9.   |         |       |       |          |       |
| C00000 IF0000C10.  |         |       |       |          |       |
| P11154 IF0000C11.  |         |       |       |          |       |
| C00024 IF0000C12.  |         |       |       |          |       |
| C00040 IF0000C13.  |         |       |       |          |       |
| C00002 IF0000C14.  |         |       |       |          |       |
| C00016 IF0000C15.  |         |       |       |          |       |
| C00002 IF0000C16.  |         |       |       |          |       |
| C00017 IF0000C17.  |         |       |       |          |       |
| P11155 IF0000C18.  |         |       |       |          |       |
| C00000 IF0000C19.  |         |       |       |          |       |
| C00012 IF0000C20.  |         |       |       |          |       |
| C00000 IF0000C21.  |         |       |       |          |       |
| C00012 IF0000C22.  |         |       |       |          |       |
| C00000 IF0000C23.  |         |       |       |          |       |
| C00012 IF0000C24.  |         |       |       |          |       |
| C00000 IF0000C25.  |         |       |       |          |       |
| C00012 IF0000C26.  |         |       |       |          |       |
| C00000 IF0000C27.  |         |       |       |          |       |
| C00012 IF0000C28.  |         |       |       |          |       |
| C00000 IF0000C29.  |         |       |       |          |       |
| C00012 IF0000C30.  |         |       |       |          |       |
| C00000 IF0000C31.  |         |       |       |          |       |
| C00012 IF0000C32.  |         |       |       |          |       |
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| C00012 IF0000C34.  |         |       |       |          |       |
| C00000 IF0000C35.  |         |       |       |          |       |
| C00012 IF0000C36.  |         |       |       |          |       |
| C00000 IF0000C37.  |         |       |       |          |       |
| C00012 IF0000C38.  |         |       |       |          |       |
| C00000 IF0000C39.  |         |       |       |          |       |
| C00012 IF0000C40.  |         |       |       |          |       |
| C00000 IF0000C41.  |         |       |       |          |       |
| C00012 IF0000C42.  |         |       |       |          |       |
| C00000 IF0000C43.  |         |       |       |          |       |
| C00012 IF0000C44.  |         |       |       |          |       |
| C00000 IF0000C45.  |         |       |       |          |       |
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| C00000 IF0000C71.  |         |       |       |          |       |
| C00012 IF0000C72.  |         |       |       |          |       |
| C00000 IF0000C73.  |         |       |       |          |       |
| C00012 IF0000C74.  |         |       |       |          |       |
| C00000 IF0000C75.  |         |       |       |          |       |
| C00012 IF0000C76.  |         |       |       |          |       |
| C00000 IF0000C77.  |         |       |       |          |       |
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| C00000 IF0000C79.  |         |       |       |          |       |
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| C00000 IF0000C81.  |         |       |       |          |       |
| C00012 IF0000C82.  |         |       |       |          |       |
| C00000 IF0000C83.  |         |       |       |          |       |
| C00012 IF0000C84.  |         |       |       |          |       |
| C00000 IF0000C85.  |         |       |       |          |       |
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| C00000 IF0000C87.  |         |       |       |          |       |
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| C00000 IF0000C89.  |         |       |       |          |       |
| C00012 IF0000C90.  |         |       |       |          |       |
| C00000 IF0000C91.  |         |       |       |          |       |
| C00012 IF0000C92.  |         |       |       |          |       |
| C00000 IF0000C93.  |         |       |       |          |       |
| C00012 IF0000C94.  |         |       |       |          |       |
| C00000 IF0000C95.  |         |       |       |          |       |
| C00012 IF0000C96.  |         |       |       |          |       |
| C00000 IF0000C97.  |         |       |       |          |       |
| C00012 IF0000C98.  |         |       |       |          |       |
| C00000 IF0000C99.  |         |       |       |          |       |
| C00012 IF0000C100. |         |       |       |          |       |



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|        |          |       |       |       |       |       |       |       |       |
|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| C00001 | ISTOHEL0 | 05145 |       |       |       |       |       |       |       |
| P11202 | IS1GRK01 | 05117 |       |       |       |       |       |       |       |
| C00021 | ISVX     | 10273 | 10321 |       |       |       |       |       |       |
| C00002 | ISVY     | 10272 | 10275 |       |       |       |       |       |       |
| C00003 | ISZE     |       |       |       |       |       |       |       |       |
| P11203 | ITABRT   | 04100 | 06067 |       |       |       |       |       |       |
| C00001 | ITANKER  | 00636 | 06070 |       |       |       |       |       |       |
| P11204 | ITESTRES | 01645 |       |       |       |       |       |       |       |
| P11205 | ITK8     | 03163 |       |       |       |       |       |       |       |
| C00000 | ITP      | 01640 |       |       |       |       |       |       |       |
|        |          | 10254 |       |       |       |       |       |       |       |
| PC0501 | ITSTORE  | 01107 | 02221 | 02301 | 02341 | 05073 | 10254 |       |       |
|        |          | 07300 | 01154 | 05103 | 10510 | 10515 | 10522 |       |       |
|        |          |       | 07121 | 07155 | 07157 | 07157 | 07161 |       |       |
| C00000 | ITWCH0   | 01770 | 02006 | 10305 | 10327 | 10465 | 10466 |       |       |
| C00010 | ITYPE    | 02666 |       |       |       |       |       |       |       |
| C00010 | ITYPE    | 02667 | 07462 | 07635 |       |       |       |       |       |
| C00000 | ITYPEX   | 01753 |       |       |       |       |       |       |       |
| P11206 | IYC      | 10026 | 10154 | 10205 | 10244 |       |       |       |       |
| P11207 | IWAR1    | 10014 | 10125 |       |       |       |       |       |       |
| P11210 | IWAR2    | 10016 | 10130 |       |       |       |       |       |       |
| P11211 | IWARA    | 10021 | 10114 |       |       |       |       |       |       |
| C00132 | IWH      | 09600 | 06755 | 07305 | 07355 | 07407 | 07407 | 07541 |       |
|        |          | 07541 | 07717 |       |       |       |       |       |       |
| C00050 | IWD1     | 10012 |       |       |       |       |       |       |       |
| C00170 | IWD2     | 10013 |       |       |       |       |       |       |       |
| C00000 | IWDASH   | 10014 |       |       |       |       |       |       |       |
| C02506 | IWHX     | 01707 | 10020 |       |       |       |       |       |       |
| C00412 | IWTYP    | 09601 | 06650 | 06756 | 07406 | 07406 |       |       |       |
| C00010 | IZIT     | 10115 | 10126 | 10132 | 10356 |       |       |       |       |
| C00004 | IZN      | 04106 |       |       |       |       |       |       |       |
| P02276 | .100     | 04064 | 04121 | 04124 | 04165 | 04200 | 04201 | 05005 | 05005 |
| P02546 | .100001  | 02265 |       |       |       |       |       |       |       |
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|        |           | 04075 | 04114 | 04127 | 04130 | 04146 | 04155 | 04171 | 04231 | 04235 |
|        |           | 05245 | 04255 |       |       |       |       |       |       |       |
|        |           | 04534 | 04534 | 04553 | 04556 |       |       |       |       |       |



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|-----------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P11237 KBCRR    | 02137  | 02151 | 02160 | 04045 | 04045 | 04050 | 04250 | 04251 | 04253 | 04254 |
| P11240 KBRFP    | 02135  | 02150 |       |       |       |       |       |       |       | 05150 |
| P11241 KBRMT    | 02140  | 02152 |       |       |       |       |       |       |       | 05472 |
| C00001 KC       | 02527  | 04152 | 03056 | 04157 | 04160 | 04221 | 04250 | 04251 | 04253 |       |
| P11242 KDL      | 04070  | 03706 | 03733 | 03734 | 03735 | 04223 | 05100 | 05120 | 05143 |       |
| P11243 KDS      | 03630  | 03706 | 03733 | 03734 | 03735 | 04223 | 05100 | 05120 | 05143 |       |
|                 | 03210  | 05235 | 05236 | 05252 | 05253 | 05334 | 05347 | 05423 | 05424 |       |
|                 | 05475  | 05476 | 05502 | 05606 |       |       |       |       |       |       |
| P11244 KEBCRT   | 02144  | 06063 |       |       |       |       |       |       |       |       |
| P11245 KECRRF   | 02142  | 02156 |       |       |       |       |       |       |       |       |
| P11246 KBRFP    | 02141  | 02154 |       |       |       |       |       |       |       |       |
| P11247 KESRT    | 02143  | 02157 |       |       |       |       |       |       |       |       |
| C00001 KEYBHX   | 01605  | 05053 |       |       |       |       |       |       |       |       |
| C00000 KEYDPEN  | 01600  | 01600 | 06046 |       |       |       |       |       |       |       |
| X00010 KEYMAKE  | 01574  | 01601 |       |       |       |       |       |       |       |       |
| P11250 KK       | 02174  | 02204 |       |       |       |       |       |       |       |       |
| P11251 KKY      | 02015  | 02415 |       |       |       |       |       |       |       |       |
| C00001 KOKO     | 02737  | 02737 | 02740 | 03050 | 03051 | 05520 | 10016 | 10017 |       |       |
| C00360 KORSTYLE |        |       |       |       |       |       |       |       |       |       |
| C05074 KOUNT    | 02526  | 02526 |       |       |       |       |       |       |       |       |
| C00132 KPL      | 02613  | 02614 | 03022 | 03023 | 03046 | 03047 | 04265 | 05051 | 05052 | 05062 |
|                 | 03063  | 05521 | 05521 | 05544 | 05544 | 05556 | 05664 | 05736 | 06042 | 06043 |
|                 | 04047  | 04054 | 06564 | 06565 | 06741 | 06742 | 07301 | 07346 | 07346 | 07373 |
|                 | 07373  | 07533 | 07711 | 10031 | 10032 | 10104 | 10164 | 10177 | 10177 | 10177 |
|                 | 05553  | 06553 | 06565 | 06566 | 06566 | 06635 | 06743 | 07043 | 07043 | 07047 |
|                 | 07047  | 07050 | 07053 | 07053 | 07133 | 07134 | 07325 | 07372 | 07372 | 06557 |
|                 | 06431  | 06513 | 06514 | 06526 | 06527 | 06540 | 06541 | 06543 | 06544 | 06654 |
|                 | 06560  | 06560 | 06607 | 06612 | 06612 | 06627 | 06630 | 06642 | 06654 | 06660 |
|                 | 06671  | 06722 | 06732 | 06734 | 06735 | 06740 | 07014 | 07175 | 07176 | 07220 |
|                 | 07221  | 07225 | 07227 | 07232 | 07247 | 07317 | 07320 | 07361 | 07362 | 07370 |
|                 | 02511  | 02522 | 03030 | 03046 | 04004 | 05004 |       |       |       |       |
| P11253 KZN      | 04233  | 04236 | 04247 | 04256 |       |       |       |       |       |       |
| P11254 L        | 04233  | 04236 | 04247 | 04256 |       |       |       |       |       |       |
| C00013 LABORT   | 040012 | 05553 | 05553 | 05622 | 05622 | 07332 | 10072 | 10073 | 10203 |       |
| C00007 LANDMC   | 040007 | 02804 | 02804 | 05747 | 05747 | 10065 | 10070 | 10070 |       |       |
| C00005 LAUNASH  | 040016 | 05041 | 05041 | 05510 | 05511 | 10050 |       |       |       |       |
| C00001 LAUNB    | 040001 | 03011 | 03011 | 05041 | 05041 |       |       |       |       |       |
| C00006 LAUNDCGY | 040006 | 06620 | 06621 | 06646 | 06646 | 06725 | 07040 | 07302 | 07302 |       |
|                 | 07347  | 07347 | 07347 | 07347 | 07347 |       |       |       |       |       |
| P11255 LAUNFLAG | 07012  | 07055 | 07170 | 07316 | 07364 |       |       |       |       |       |
| C00000 LAUNM    | 04636  |       |       |       |       |       |       |       |       |       |
| P11256 LB       | 05676  | 05677 | 04566 | 04566 | 05671 | 05672 |       |       |       |       |
| C00003 LC       | 02645  | 02645 |       |       |       |       |       |       |       |       |
| P11257 LCHOD    | 05673  | 05740 | 10304 | 10313 | 04234 | 04237 | 04301 | 04304 |       |       |
| C00007 LDBL     | 04636  | 04636 | 04644 | 04647 |       |       |       |       |       |       |
| P00473 LDHHT    | 03941  | 03733 |       |       |       |       |       |       |       |       |
| C00002 LDN      | 040002 |       |       |       |       |       |       |       |       |       |
| C00006 LDREN    | 02705  | 02706 | 07470 | 07643 |       |       |       |       |       |       |
| C00015 LEAVEREF | 040015 |       |       |       |       |       |       |       |       |       |
| C00012 LEGOCG   | 040020 | 03671 | 03671 | 04016 | 04017 | 05733 | 10062 | 10062 |       |       |
| C00014 LENTEREF | 040014 |       |       |       |       |       |       |       |       |       |
| C00002 LEREFUEL | 040002 |       |       |       |       |       |       |       |       |       |
| P11260 LHT      | 04307  | 04317 | 04317 | 04322 | 05027 | 05133 | 05136 | 05142 | 05414 | 05420 |
|                 | 04304  | 05466 | 05471 | 05501 |       |       |       |       |       |       |
| C00001 LIN      | 040001 |       |       |       |       |       |       |       |       |       |



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|--------|----------|-------|-------|-------|-------|-------|-------|
| P11270 | MHTDPN   | U5054 | U5341 | U5412 | U5447 | U5450 | U5464 |
| C00000 | MISCI    | U5505 | U5512 | U5526 | U5530 | U5551 | U5551 |
| C00011 | MISSATTN | U5554 | U5614 | U5614 | U5620 | U5621 | U5623 |
| P11271 | MC       | U5641 | U5653 | U5656 | U5664 | U5721 | U5721 |
| C05170 | MCUNT    | U5726 | U5745 | U5750 | U6036 | U6036 | U6214 |
| C00014 | MPAYLCU  | U6265 | U6272 | U6401 | U6471 | U7551 | U7551 |
| C00015 | MRECOVR  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00016 | MRECVLG  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00017 | MREF     | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00020 | MRTLEG   | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00021 | MRTPI    | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00000 | MVFLG    | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00004 | MSLTIME  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00022 | MSPEMT   | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00023 | MTANKDS  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00024 | MTARCLS  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00025 | MTARCLL  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00026 | MTARCPX  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00027 | MTARERS  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00001 | MTARGCT  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00030 | MTARGET  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00031 | MTARINA  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00036 | MTARPCCL | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00032 | MTARSEC  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00033 | MTARTEL  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00034 | MTARITYP | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00035 | MTARVAL  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00036 | MTELPCM  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00037 | MTCTBAS  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00040 | MTYPE    | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00041 | MTULN    | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00042 | MWEAPGF  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00043 | MWHDTYPE | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00025 | MWT      | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| P11273 | MXBAS    | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00003 | MYCOMV   | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00002 | MYCONR   | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00003 | MYCORPC  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00000 | MYFCOM   | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00001 | MYGROUP  | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |
| C00002 | MYGROUPC | U6444 | U6444 | U6444 | U6444 | U6444 | U6444 |

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|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C00132 RPLAT    | U3015 | U3071 | U3207 | U3213 | U3214 | U3246 | U3270 | U3277 | U3350 |
| C00170 RPLONG   | U3405 | U3462 | U3771 | U3771 | U5010 | U5011 | U5033 | U5164 | U5164 |
| C00000 SI       | U5264 | U5565 | U5565 | U5724 | U5724 | U6676 | U6710 | U7243 | U7243 |
| C00002 S2       | U7261 | U3072 | U3206 | U3300 | U3341 | U3375 | U3775 | U5022 | U5023 |
|                 | U3061 | U5173 | U5173 | U5273 | U5571 | U5701 | U5702 | U6703 | U6703 |
|                 | U5034 | U7254 | U7254 |       |       |       |       |       |       |
| C00004 SCALE    | U2622 |       |       |       |       |       |       |       |       |
| X00016 SETREAD  | U1041 |       |       |       |       |       |       |       |       |
| X00025 SETWHITE | U2306 |       |       |       |       |       |       |       |       |
| X00020 SKIP     | U1071 | U1725 | U1745 | U1755 | U1777 | U3003 | U3614 | U4772 | U6275 |
| X00023 SNAPCON  | U2101 | U2423 | U2436 | U2436 |       |       |       |       |       |
| X00026 SNAPTIT  | U2334 | U2426 | U2436 | U2436 |       |       |       |       |       |
|                 | U2337 | U2417 | U2436 | U2436 |       |       |       |       |       |
|                 | U2433 | U2744 | U2744 | U2744 |       |       |       |       |       |
| C00000 SPASH    | U7014 | U7025 | U7034 | U7034 | U2765 | U2775 | U3000 | U3001 | U3500 |
| P11314 SPDH     | U2660 | U2660 | U2744 | U2744 | U7004 | U7005 | U7012 | U7013 | U7033 |
| C000210 SPDH1   | U3501 | U3505 | U3506 | U3506 | U6312 | U6445 |       |       |       |
|                 | U2661 | U2661 | U6245 | U6245 | U7125 | U7126 |       |       |       |
| C00007 SPDHIC   | U2661 | U7101 | U7113 | U7113 | U2773 | U7002 |       |       |       |
|                 | U7033 | U7100 | U2770 | U2770 | U7024 |       |       |       |       |
| C000207 SPDLC   | U2662 | U2767 | U2767 | U2767 |       |       |       |       |       |
| C000010 SPDLC   | U2663 | U6443 | U6443 | U6443 |       |       |       |       |       |
| C00123 SPEEDASM | U2743 | U3155 | U3205 | U3240 | U3240 | U3261 | U3267 | U3314 | U3314 |
| C00005 SR       | U3133 | U3340 | U3340 | U3340 | U3340 | U3340 | U3340 | U3340 | U3340 |
|                 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 |
|                 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 |
| P11315 SRP      | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 |
| P11316 SSARE    | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 | U3341 |
| X00071 STB.     | U7522 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 |
| X00070 STM.     | U7522 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 |
|                 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 |
|                 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 |
| X00011 STORAGE  | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 | U7567 |
| C00014 STRKFIL  | U2220 | U2340 | U2340 | U2340 | U2340 | U2340 | U2340 | U2340 | U2340 |
| C00172 SURVCUT  | U5060 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 |
| X00052 SWITCHAL | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 |
| C00001 T1       | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 |
|                 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 |
|                 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 | U5455 |
| C00003 T2       | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |
|                 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |
|                 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |
|                 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |
| P00046 TANKRD   | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |
| C00050 TANKSPD  | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |
| X00060 TERMTEPE | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |
| P00037 TGMEN    | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |
| C00000 TGTFILE  | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |
| P00041 THA      | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |
| P00040 THB      | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |
| X00002 THEND.   | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 | U7245 |

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| P10216  | TS00046. |          |       |       |          |       |       |       |       |       |
| P10606  | TS00052. |          |       |       |          |       |       |       |       |       |
| P11330  | TS00052. |          |       |       |          |       |       |       |       |       |
| X00067  | TS00052. |          |       |       |          |       |       |       |       |       |
| P00501  | TS00052. |          |       |       |          |       |       |       |       |       |
| C00000  | TWCRD    |          |       |       |          |       |       |       |       |       |
| P00231  | TKN      |          |       |       |          |       |       |       |       |       |
| P00147  | TXT      |          |       |       |          |       |       |       |       |       |
| C001034 | TZN      |          |       |       |          |       |       |       |       |       |
| C02354  | TZNX     |          |       |       |          |       |       |       |       |       |
| C00702  | TZT      |          |       |       |          |       |       |       |       |       |
| C02222  | TZTX     |          |       |       |          |       |       |       |       |       |
| C00000  | U1       |          |       |       |          |       |       |       |       |       |
| C00002  | U2       |          |       |       |          |       |       |       |       |       |
| C00004  | UAT      |          |       |       |          |       |       |       |       |       |
| P10717  | UP00000. |          |       |       |          |       |       |       |       |       |
| P10732  | UP00000. |          |       |       |          |       |       |       |       |       |
| P10746  | UP00000. |          |       |       |          |       |       |       |       |       |
| P10756  | UP00010. |          |       |       |          |       |       |       |       |       |
| P10767  | UP00020. |          |       |       |          |       |       |       |       |       |
| P10776  | UP00030. |          |       |       |          |       |       |       |       |       |
| P11006  | UP00056. |          |       |       |          |       |       |       |       |       |
| P11016  | UP00057. |          |       |       |          |       |       |       |       |       |
| C00001  | V1       |          |       |       |          |       |       |       |       |       |
| C00003  | V2       |          |       |       |          |       |       |       |       |       |
| C00005  | VAT      |          |       |       |          |       |       |       |       |       |
| C00001  | VHA      |          |       |       |          |       |       |       |       |       |
| C00000  | VHB      |          |       |       |          |       |       |       |       |       |
| C00003  | VLA      |          |       |       |          |       |       |       |       |       |
| C00002  | VLB      |          |       |       |          |       |       |       |       |       |
| X00014  | VPLNTPA  |          |       |       |          |       |       |       |       |       |
| X00056  | WRARRAY  |          |       |       |          |       |       |       |       |       |
| X00055  | WRWCRD   |          |       |       |          |       |       |       |       |       |
| P02047  | W500001. |          |       |       |          |       |       |       |       |       |
| P02060  | W500002. |          |       |       |          |       |       |       |       |       |
| P02071  | W500003. |          |       |       |          |       |       |       |       |       |
| P02240  | W500004. |          |       |       |          |       |       |       |       |       |
| P02323  | W500005. |          |       |       |          |       |       |       |       |       |
| P02556  | W500006. |          |       |       |          |       |       |       |       |       |
| P02716  | W500007. |          |       |       |          |       |       |       |       |       |
| P02752  | W500010. |          |       |       |          |       |       |       |       |       |
| P03144  | W500011. |          |       |       |          |       |       |       |       |       |
| P03377  | W500012. |          |       |       |          |       |       |       |       |       |
| P03540  | W500013. |          |       |       |          |       |       |       |       |       |
| P03550  | W500014. |          |       |       |          |       |       |       |       |       |
|         |          | 07116    | 07131 | 07151 | 07152    | 07211 | 07213 | 07216 | 07224 | 07276 |
|         |          | 04137    | 04200 | 04202 |          |       |       |       |       |       |
|         |          | 04134    | 04176 | 04200 |          |       |       |       |       |       |
|         |          | 05525    | 05525 | 06576 | 06577    | 06753 | 06754 | 07405 | 07405 | 07540 |
|         |          | 10147    | 10147 |       |          |       |       |       |       |       |
|         |          | 06754    | 06755 | 07404 | 07404    | 06752 | 07403 | 07403 | 07537 | 07715 |
|         |          | 05523    | 06574 | 06575 | 06751    |       |       |       |       |       |
|         |          | 10135    | 10141 | 10141 |          |       |       |       |       |       |
|         |          | 06576    | 06752 | 07402 | 07402    |       |       |       |       |       |
|         |          | 04744    |       |       |          |       |       |       |       |       |
|         |          | 04435    | 04473 | 04750 |          |       |       |       |       |       |
|         |          | 02067    | 02124 | 02164 | 02236    | 02247 | 02551 | 02710 | 02750 | 03142 |
|         |          | 03176    | 03372 | 03536 | 03567    | 04072 | 04162 | 04210 | 04216 | 04223 |
|         |          | 04277    | 04311 | 04326 | 04351    | 04410 | 04453 | 04611 | 04624 | 04735 |
|         |          | 04767    | 05103 | 05546 | 07143    | 07202 | 07526 | 07557 | 07603 | 07704 |
|         |          | 07726    | 07743 | 07767 | 07774    | 10270 | 10317 | 10546 | 10605 | 10713 |
|         |          | 10720    | 10721 | 10722 | 10724    | 10724 |       |       |       |       |
|         |          | 05767    | 06003 | 06015 | 06032    | 10726 | 10733 | 10737 | 10740 | 10747 |
|         |          | 03670    | 04555 | 04512 | 04525    | 06537 | 06771 | 10215 | 10742 |       |
|         |          | 10750    | 10751 | 10754 | 10754    |       |       |       |       |       |
|         |          | 10707    | 10760 | 10761 | 10762    | 10765 | 10765 |       |       |       |
|         |          | 02077    | 03517 | 10770 | 10771    | 10772 | 10774 |       |       |       |
|         |          | 06013    | 06030 | 06055 | 10777    | 11000 | 11001 | 11003 | 11004 |       |
|         |          | 06503    | 07065 | 11007 | 11010    | 11011 | 11013 | 11014 |       |       |
|         |          | 07067    | 11017 | 11020 | 11021    | 11023 | 11024 |       |       |       |
|         |          | 04746    |       |       |          |       |       |       |       |       |
|         |          | 04437    | 04440 | 04474 | 04475    | 04752 | 04752 |       |       |       |
|         |          | 02773    | 02774 |       |          |       |       |       |       |       |
|         |          | 02770    | 02771 |       |          |       |       |       |       |       |
|         |          | 03001    | 03002 |       |          |       |       |       |       |       |
|         |          | 04776    | 04777 |       |          |       |       |       |       |       |
|         |          | 01623    | 10334 | 10340 | 10344    | 10350 | 10354 | 10370 | 10472 | 10476 |
|         |          | 10311    | 10331 | 10467 |          |       |       |       |       |       |
|         |          | 02053    |       |       |          |       |       |       |       |       |
|         |          | 02064    |       |       |          |       |       |       |       |       |
|         |          | 02075    |       |       |          |       |       |       |       |       |
|         |          | 02251    |       |       |          |       |       |       |       |       |
|         |          | 02326    |       |       |          |       |       |       |       |       |
|         |          | 02575    |       |       |          |       |       |       |       |       |
|         |          | 02734    |       |       |          |       |       |       |       |       |
|         |          | 02763    |       |       |          |       |       |       |       |       |
|         |          | 03200    |       |       |          |       |       |       |       |       |
|         |          | 03425    |       |       |          |       |       |       |       |       |
|         |          | 03544    |       |       |          |       |       |       |       |       |
|         |          | 03552    |       |       |          |       |       |       |       |       |



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SUBROUTINE ADJUST
  CSUBR  ADJUST 18AG71E *****
  CUSE   ASHARRY 2DEC70 *****
        COMMON/ASHARRY/ALAT(10),ALON(10),IFLY(10),IDIS(10),ICRD(10),
        1,JAY,JOIST *****
  CEND
  CUSE   ASHARRY *****
        DINDATA 2DEC70 *****
        COMMON/DINDATA/HUT(90),KPL(90),JTP(90),MLA(90),MLC(90),TZT(90),
        1,TZN(90),IPA(90),PHI,NPL *****
  CEND
  CUSE   DINDATA *****
        DINSTC  2DEC70 *****
        COMMON/DINSTC/DISTC(20) *****
  CEND
  CUSE   DINSTC *****
        EVENTS  2DEC70 *****
        COMMON/EVENTS/LAUNCH,LAUNCH,LEREFUEL,INSECTOR,LCCLAT,TR,LAUNCH,
        1,LAUNCH,CCY,LAUNCH, LCH,MISSAT,TR,LEUD,LABORT,LENTREF,LEAVEREF,
        1,IGCHI,IG,LOW *****
  CEND
  CUSE   EVENTS *****
        MILC    2DEC70 *****
        COMMON/MILC/ISTOREHI,ISTORELO,IGLEFT,FACHI,FACLO,GOLC *****
  CEND
  CUSE   MILC *****
        IGC     2DEC70 *****
        COMMON/IGC/IGC800 *****
  CEND
  CUSE   IGC *****
        CUTSRT  16FEB71 *****
        COMMON/CUTSRT/IGUTSRT *****
        1,MYGROUP,MYCORR,INDVEM,IREF,IGPEN,IPAYLOAD,LNCHBASE,IYP *****
        2,BLAT,BLON,GNAP,IBTYPE(10),GBLAT(10),GBLON(10),DLAT(10),DLON(10)
        3,IBJEC(10),IBDES(10),IBTSK(10),IBCTY(10),IBFLG(10),ATTRCUT(10),
        4,SURVUT(10),GOLW1,GOLW2,GOLW3,SPDLG *****
        4,SPDL,IRANGE,HANGEREF,UELAY,IRG,ILRT,IRDBMBER,AVAILLOW,MNGDEC *****
        /CUTSRT/ IS THE INPUT RECORD FROM STRKFILE *****
  CEND
  CUSE   CUTSRT *****
        POLITE  2DEC70 *****
        COMMON/POLITE/S1,T1,SC,T2,FACTOR,SR,TR *****
  CEND
  CUSE   POLITE *****
        VICINITY 2DEC70 *****
        COMMON/VICINITY/VNB,VMA,VLB,VLA,GBMIN *****
  CEND
  CUSE   VICINITY *****
        IGC800=C *****
        GOLX2=GOLW2 *****
        GOLX3=GOLW3 *****
        MHAP=MHAP-1 *****
        DC 5600 I=1,20 *****
        DISTC(I)=0 *****
  C FIND DISTANCES BETWEEN TARGET EVENTS *****
        DC 5300 I=1,MHAP *****
        A1=ALAT(I) *****
        B1=ALON(I) *****
        A2=ALAT(I+1) *****
        B2=ALON(I+1) *****
        DISTC(I)=DISTF(A1,B1,A2,B2) *****
  CEND
  CUSE   DISTC *****
        CALL SNAPIT(11,1) *****
        DC 5398 I=1,MHAP *****
        IF (DISTC(I).NE.0.) 5399,5398 *****
        5300 CONTINUE *****

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5398 CONTINUE
PRINT 5668
5668 FORMAT(32MONO EVENTS AFTER CORRIDOR ORIGIN)
160800=1
GC TO 5460
C 13 IS NO. OF FIRST EVENT AFTER CORRIDOR ORIGIN
5399 13=1
IF(1.61.1)600.901
C ASMS LAUNCHED AT ORIGIN
600 G2=GOLX2*GCMIN
IF(12.17.DISTC(1))601.602
C GC LOW AT ORIGIN - LAUNCH ASMS FIVE MINUTES LATER
602 S1=ALAT(1)
T1=ALON(1)
S2=ALAT(13)
T2=ALON(13)
FACTOR = (SPULO/12.) / DISTF (S1.11.S2.12)
CALL INTERP
K=13-1
DC 603 J=2,K
ALAT(1)=SR
603 ALON(1)=TR
13=2
GC TO 5331
601 CONTINUE
IF(GOLX2)5301.5302.5303
C BOMBER GOES LOW AFTER FIRST TARGET
5301 GOLUM=GOLX2
DC 5310 1=13*MAP
GOLUM=GOLUM-DISTC(1)
IF(GOLUM)5311.5311.5310
5310 CONTINUE
PRINT 5669
5669 FORMAT(41MONO NEGATIVE GOLX2 EXTENDS TO END OF SORTIE)
160800=1
GC TO 5460
C POINT AT WHICH BOMBER GOES LOW AFTER FIRST TARGET
5311 ISTOREL=1
DISTA=DISTC(1)*GOLUM
DISTB=GOLUM
GC TO 5350
5302 IF(GOLX3)5320.5321
C BOMBER GOES LOW AT FIRST TARGET
5320 ISTOREL=13-1
DISTA=DISTC(1)(STOREL)
DISTB=0.
GC TO 5350
C BOMBER CANNOT GO LOW AT ALL
5321 ISTOREL=0
ISTOREH=0
GC TO 5460
5303 G2=GOLX2*GCMIN
ISTOREL=13-1
IF(12.17.DISTC(1)(STOREL))5330.5331
C BOMBER GOES LOW BETWEEN ORIGIN AND FIRST TARGET
5330 DISTB=GOLX2

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DISTA=DISTC(ISTORELO)=GCLOXZ
GC TO 5350
C BOMBER GOES LOW AT CORRIDOR ORIGIN
5331 ISTORELC=1
FACLO=0.
IF(JTPT(MHT).EQ.LOWMI)5001,5390
C BOMBER IS APPROACHING ORIGIN AT LOW ALTITUDE -
CANCEL GC HIGH POSTED IN BLOCK 30
5601 MHT=MHT-1
LOWFLAG=1
GC TO 5390
CHECK GC LOW FOR POSSIBLE BACKWARD ADJUSTMENT
5350 ACDIST=01STB
JSTORELC=ISTORELC+1
DC 5355 I=JSTORELC,MHAP
IBTYPE=IBTYPE(I)
IF((IBTYPEI.EQ.8MDRCPQMB).OR.(IBTYPEI.EQ.8H AIM ASM))5351,5352
5352 ACDIST=ACDIST+DISTC(I)
5355 CONTINUE
GC TO 5370
5351 IF(ACDIST.LT.VLB)5360,5370
C BOMBER GOES LOW TOO SOON BEFORE TARGET - MUST GO LOW EARLIER
5360 ACDIST=VLB-ACDIST+01SIN
DISTA=DISTC(ISTORELC)-ACDIST
5360 ACDIST=JF.DISTC(ISTORELC))5361,5370
C LOW MUST BE MOVED BEFORE PREVIOUS EVENT(S)
5361 DC 5365 I=1,ISTORELC
J=ISTORELC-I+1
ACDIST=ACDIST-DISTC(J)
IF(ACDIST)5366,5366,5367
5367 IF(J.EQ.1)5368,5369
5369 IBTYPE=IBTYPE(J)
IF((IBTYPEI.EQ.8MDRCPQMB).OR.(IBTYPEI.EQ.8H AIM ASM))5362,5365
5365 CONTINUE
C GC LOW IS MOVED BEFORE EVENT J
5366 ISTORELC=J
DISTA=ACDIST
GC TO 5370
C ANOTHER TARGET ENCOUNTERED BEFORE COMPLETION OF ADJUSTMENT FOR LAST
C TARGET - MOVE GC LOW TO SUITABLE DISTANCE BEFORE THIS TARGET
5362 ACDIST=VLB
ISTORELC=J-1
GC TO 5361
C GC LOW CANNOT BE MOVED PAST CORRIDOR ORIGIN
5368 ISTORELC=1
DISTA=0.
C BACKWARD ADJUSTMENT COMPLETE - CHECK FOR FORWARD ADJUSTMENT
5370 ACDIST=DISTA
DC 5375 I=1,ISTORELC
J=ISTORELC-I+1
IF(J.EQ.1)5400,5379
5379 IF(ACDIST.LT.VLB)5371,5400
5371 IBTYPE=IBTYPE(J)
IF((IBTYPEI.EQ.8MDRCPQMB).OR.(IBTYPEI.EQ.8H AIM ASM))5372,5373
5373 ACDIST=ACDIST+DISTC(J-1)
5375 CONTINUE

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C BOMBER GOES LOW TOO SOON AFTER TARGET - MOVE GO LOW TO
C APPROPRIATE DISTANCE BEFORE TARGET
5372 ACQIST=VLB
    ISTOREL=J-1
    GO TO 5380
C STORE FINAL GO LOW FACTOR
5400 FACLO=DISTA
5390 CONTINUE
C FIND GO HIGH LOCATION
    TGOLO=GOLOX2*GOLOX3
    ACQIST=DISTC(ISTOREL)-FACLO
    I=ISTOREL-1
    DC 5410 J=1*HMAP
    GOLO=GOLO-ACQIST
    IF (GOLO) 5405,5405,5400
    5406 ACQIST=ACQIST+DISTC(J)
    5410 CONTINUE
C BOMBER GOES HIGH AFTER DEPENETRATION
    ISTOREH=J-1
    I=LEFT=1
    GO TO 5460
C BOMBER GOES HIGH OVER TARGET AREA
5405 ISTOREH=J-1
    I=LEFT=0
    DISTA=DISTC(ISTOREH)*GOLO
    GOLO=GOLO
    ACQIST=DISTA
    ISTOREH=I-1
C USES BOMBER GO HIGH TOO SOON AFTER TARGET
    DC 5425 J=1*ISHI
    IF (ACQIST+LI*VM-1) 5420,5430
    5420 K=ISTOREH-J+1
    5424 I=ISTOREH-I
    5422 ACQIST=ACQIST+DISTC(K-1)
    5425 CONTINUE
    GO TO 5430
C MOVE GO HIGH TO APPROPRIATE DISTANCE AFTER TARGET
5421 ACQIST=VMA
    CMELO TO INSURE NEW LOCATION IS NOT TOO CLOSE TO ANOTHER TARGET
    DC 5426 I=K*HMAP
    ACQIST=ACQIST-DISTC(I)
    IF (ACQIST) 5427,5427,5428
    5428 I=ISTOREH-I+1
    IF (I=ISTOREH) 5429,5429,5426
    5426 CONTINUE
    ISTOREH=I
    FACLO=DISTC(I)
    GO TO 5460
C GO HIGH MUST BE MOVED PAST ANOTHER TARGET
5429 K=I+1
    GO TO 5421
C GO HIGH IS NOT MOVED PAST ANOTHER TARGET
5427 ISTOREH=I
    DISTA=DISTC(I)*ACQIST
    DISTA=ACQIST

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AUGUST

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PAGE NO.

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AUGUST

IDENT

U0115  
U0037  
U0064  
U1322  
U0024  
U0020  
U0008  
U0001  
U0221  
U0007  
U0005

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

AUGUST

ASHMANNAY  
DINDATA  
DISTG  
EVENTS  
MILC  
IGC  
OUTSAT  
POLITE  
VICINITY

EXTERNAL SYMBOLS

THEND.  
QUDDICT.  
DISTF  
SNAPIT  
INTERP  
STK.



| DATE             | ADJUST | 11/24/71 | ED    | 0     | PAGE NO. | 7     |
|------------------|--------|----------|-------|-------|----------|-------|
| P00667 A1        | 00065  | 00076    |       |       |          |       |
| P00670 A2        | 00071  | 00077    |       |       |          |       |
| P00671 AC01ST    | 00005  | 00321    | 00331 | 00335 | 00355    | 00400 |
|                  | 00003  | 00413    | 00445 | 00466 | 00471    | 00515 |
|                  | 00523  | 00540    | 00551 | 00557 | 00613    | 00634 |
|                  | 00641  |          |       |       |          |       |
| P00637 ADJUST    | 00037  | 00070    | 00140 | 00145 | 00174    |       |
| C00000 ALAT      | 00064  | 00072    | 00142 | 00147 | 00176    |       |
| C00012 ALCH      | 00066  |          |       |       |          |       |
| C00160 ATTROUT   |        |          |       |       |          |       |
| C00672 B1        | 00067  | 00076    |       |       |          |       |
| P00673 B2        | 00073  | 00077    |       |       |          |       |
| P00654 BEGIN.    | 00655  |          |       |       |          |       |
| C00011 BLAT      |        |          |       |       |          |       |
| C00012 BLONG     |        |          |       |       |          |       |
| P00674 COUNT.    | 00062  | 00171    | 00172 |       |          |       |
| P00003 CRFMT.    | 00124  | 00226    |       |       |          |       |
| C00213 DELAY     | 00041  | 00103    | 00120 | 00123 | 00155    | 00225 |
| P00001 DICT.     | 00235  | 00270    | 00342 | 00401 | 00412    | 00515 |
| C00063 DIST      | 00642  | 00246    | 00304 | 00336 | 00314    | 00610 |
| P00675 DISTA     | 00236  | 00265    | 00304 | 00336 | 00314    |       |
| P00676 DISTB     | 00055  | 00100    | 00100 | 00110 | 00110    | 00233 |
| C00000 DISTC     | 00233  | 00244    | 00262 | 00266 | 00322    | 00340 |
|                  | 00345  | 00356    | 00356 | 00436 | 00472    | 00510 |
|                  | 00510  | 00541    | 00555 | 00556 | 00575    | 00633 |
|                  | 00074  | 00154    |       |       |          |       |
| X00003 DISTF     |        |          |       |       |          |       |
| C00052 DLAT      |        |          |       |       |          |       |
| C00064 DLONG     |        |          |       |       |          |       |
| P00656 ENDING.   | 00042  | 00654    |       |       |          |       |
| P00000 EXIT.     | 00657  |          |       |       |          |       |
| C00003 FACHI     | 00577  | 00647    | 00647 |       |          |       |
| C00004 FALC      | 00274  | 00452    | 00457 | 00457 |          |       |
| C00004 FACTOR    | 00161  |          |       |       |          |       |
| P00003 FORMAT.   | 00310  | 00414    | 00521 | 00552 | 00620    |       |
| P00677 G2        | 00134  | 00255    |       |       |          |       |
| P00124 GGG0000.  | 00116  |          |       |       |          |       |
| P00426 G-000001. | 00220  |          |       |       |          |       |
| C00005 GCLC      | 00466  | 00467    | 00511 | 00513 | 00513    |       |
| C00204 GCLCH1    | 00044  |          |       |       |          |       |
| C00205 GCLCH2    | 00046  |          |       |       |          |       |
| C00206 GCLCH3    | 00047  |          |       |       |          |       |
| P00700 GCLCH2    | 00132  | 00202    | 00205 | 00253 | 00270    | 00453 |
| P00701 GCLCH3    | 00050  | 00454    |       |       |          |       |
| P00702 GCLUM     | 00206  | 00210    | 00234 | 00235 |          |       |
| C00004 GCLUM     | 00133  | 00254    | 00254 |       |          |       |
| C00000 HGT       |        |          |       |       |          |       |
| C00016 HLA       |        |          |       |       |          |       |
| C00550 HLC       |        |          |       |       |          |       |
| P00703 I         | 00053  | 00054    | 00060 | 00063 | 00107    | 00207 |
|                  | 00211  | 00215    | 00230 | 00232 | 00312    | 00373 |
|                  | 00414  | 00417    | 00441 | 00463 | 00522    | 00575 |
|                  |        |          |       |       | 00130    | 00135 |
|                  |        |          |       |       | 00351    | 00353 |
|                  |        |          |       |       | 00570    | 00573 |
|                  |        |          |       |       | 00126    | 00135 |
|                  |        |          |       |       | 00325    | 00353 |
|                  |        |          |       |       | 00561    | 00573 |

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| ADJUST          | 00500 | 00503 | 00505 | 00521 | 00522 | 00632 | 00635 | 00644 | 00652 | 00653 | 00655 | 00623 | 00624 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P00704 I3       | 00127 | 00144 | 00165 | 00201 | 00206 | 00241 | 00255 |       |       |       |       |       |       |
| P00134 IBCTV    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00110 IBDES    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00146 IBFLG    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00076 IBJEC    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00122 IBTSK    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00014 IBTYPE   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00705 IBTYPEI  |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00216 IDBCH8EM |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00036 IDIS     |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00005 IDPEN    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00316 IF00001. |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00370 IF00002. |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00432 IF00003. |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00535 IF00004. |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00565 IF00005. |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00626 IF00006. |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00024 IFLY     |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00000 IGB80C   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00016 IGCHI    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00002 IGCLEFT  |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00017 IGCLEN   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00015 ILRT     |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00003 INOVEM   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00054 INITIAL. |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00003 INSECTOR |       |       |       |       |       |       |       |       |       |       |       |       |       |
| X00005 INTENP   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00050 IQRD     |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00000 ICUTSRT  |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00004 IPAYLCAD |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00024 IREF     |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00706 ISTMI    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00000 ISTCHEMI |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00001 ISTCRELO |       |       |       |       |       |       |       |       |       |       |       |       |       |
| C00010 ITPP     |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00101 .5300    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00205 .5301    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00237 .5302    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00253 .5303    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00215 .5310    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00230 .5311    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00241 .5320    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00250 .5321    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00264 .5330    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00272 .5331    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P00304 .5350    |       |       |       |       |       |       |       |       |       |       |       |       |       |

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ADJUST

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|                 |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|
| P00331 .5351    | 00315 | 00320 |       |       |       |
| P00321 .5352    | 00317 |       |       |       |       |
| P00325 .5355    |       |       |       |       |       |
| P00334 .5360    |       |       |       |       |       |
| P00350 .5361    | 00347 | 00406 |       |       |       |
| P00402 .5362    | 00307 | 00372 |       |       |       |
| P00373 .5365    | 00371 |       |       |       |       |
| P00376 .5366    | 00360 |       |       |       |       |
| P00361 .5367    |       |       |       |       |       |
| P00407 .5368    | 00303 |       |       |       |       |
| P00364 .5369    | 00302 |       |       |       |       |
| P00412 .5370    | 00330 |       |       |       |       |
| P00426 .5371    | 00333 | 00333 | 00346 | 00346 | 00401 |
| P00444 .5372    |       |       |       |       |       |
| P00435 .5373    | 00431 | 00434 |       |       |       |
| P00441 .5375    | 00433 |       |       |       |       |
| P00423 .5379    | 00421 |       |       |       |       |
| P00443 .5380    | 00450 |       |       |       |       |
| P00453 .5390    | 00277 | 00303 |       |       |       |
| P00113 .5398    | 00112 |       |       |       |       |
| P00126 .5399    | 00112 |       |       |       |       |
| P00451 .5400    | 00422 | 00425 |       |       |       |
| P00504 .5405    | 00467 | 00470 |       |       |       |
| P00471 .5406    |       |       |       |       |       |
| P00475 .5410    |       |       |       |       |       |
| P00526 .5420    |       |       |       |       |       |
| P00550 .5421    | 00534 | 00537 | 00602 | 00645 |       |
| P00540 .5422    | 00536 |       |       |       |       |
| P00531 .5424    |       |       |       |       |       |
| P00544 .5425    |       |       |       |       |       |
| P00570 .5426    | 00566 |       |       |       |       |
| P00603 .5427    | 00557 | 00560 |       |       |       |
| P00561 .5428    |       |       |       |       |       |
| P00600 .5429    | 00594 | 00567 |       |       |       |
| P00612 .5430    | 00525 | 00525 | 00547 |       |       |
| P00641 .5431    | 00625 | 00630 |       |       |       |
| P00631 .5432    | 00627 |       |       |       |       |
| P00644 .5433    |       |       |       |       |       |
| P00635 .5435    |       |       |       |       |       |
| P00646 .5450    | 00617 | 00640 | 00643 |       |       |
| P00650 .5460    | 00125 | 00627 | 00503 | 00577 |       |
| P00620 .5471    | 00617 |       |       |       |       |
| P00655 .5600    |       |       |       |       |       |
| P00300 .5601    |       |       |       |       |       |
| P00132 .600     |       |       |       |       |       |
| P00202 .601     | 00131 | 00137 |       |       |       |
| P00140 .602     | 00136 | 00137 |       |       |       |
| P00175 .603     |       |       |       |       |       |
| P00660 .ERASER. | 00153 | 00160 | 00160 | 00161 |       |
| P00023 .100000  | 00315 |       |       |       |       |
| P00024 .100001  | 00317 |       |       |       |       |
| P00025 .100002  | 00367 |       |       |       |       |
| P00026 .100003  | 00371 |       |       |       |       |
| P00027 .100004  | 00431 |       |       |       |       |



5.4TS

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|        |          |       |       |       |       |       |       |       |       |       |
|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P00714 | TSCLC    | 00454 | 00550 | 00550 | 00524 | 00550 | 00524 | 00550 | 00524 | 00550 |
| X00001 | THEND.   | 00122 | 00175 | 00122 | 00175 | 00122 | 00175 | 00122 | 00175 | 00122 |
| C00006 | TR       | 00175 | 00175 | 00175 | 00175 | 00175 | 00175 | 00175 | 00175 | 00175 |
| P00102 | TS00002. | 00062 | 00062 | 00062 | 00062 | 00062 | 00062 | 00062 | 00062 | 00062 |
| P00114 | TS00001. | 00106 | 00106 | 00106 | 00106 | 00106 | 00106 | 00106 | 00106 | 00106 |
| P00200 | TS00004. | 00171 | 00171 | 00171 | 00171 | 00171 | 00171 | 00171 | 00171 | 00171 |
| P00216 | TS00005. | 00207 | 00207 | 00207 | 00207 | 00207 | 00207 | 00207 | 00207 | 00207 |
| P00326 | TS00008. | 00311 | 00311 | 00311 | 00311 | 00311 | 00311 | 00311 | 00311 | 00311 |
| P00374 | TS00007. | 00351 | 00351 | 00351 | 00351 | 00351 | 00351 | 00351 | 00351 | 00351 |
| P00442 | TS00010. | 00415 | 00415 | 00415 | 00415 | 00415 | 00415 | 00415 | 00415 | 00415 |
| P00476 | TS00011. | 00464 | 00464 | 00464 | 00464 | 00464 | 00464 | 00464 | 00464 | 00464 |
| P00545 | TS00012. | 00522 | 00522 | 00522 | 00522 | 00522 | 00522 | 00522 | 00522 | 00522 |
| P00571 | TS00013. | 00553 | 00553 | 00553 | 00553 | 00553 | 00553 | 00553 | 00553 | 00553 |
| P00636 | TS00014. | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 |
| C01034 | TZN      |       |       |       |       |       |       |       |       |       |
| C00702 | TZT      |       |       |       |       |       |       |       |       |       |
| C00001 | VMA      | 00524 | 00524 | 00524 | 00524 | 00524 | 00524 | 00524 | 00524 | 00524 |
| C00000 | VMB      | 00642 | 00642 | 00642 | 00642 | 00642 | 00642 | 00642 | 00642 | 00642 |
| C00003 | VLA      | 00624 | 00624 | 00624 | 00624 | 00624 | 00624 | 00624 | 00624 | 00624 |
| C00002 | VLB      | 00332 | 00332 | 00332 | 00332 | 00332 | 00332 | 00332 | 00332 | 00332 |
| P00055 | WS00001. | 00057 | 00057 | 00057 | 00057 | 00057 | 00057 | 00057 | 00057 | 00057 |
| P00064 | WS00002. | 00101 | 00101 | 00101 | 00101 | 00101 | 00101 | 00101 | 00101 | 00101 |
| P00107 | WS00003. | 00115 | 00115 | 00115 | 00115 | 00115 | 00115 | 00115 | 00115 | 00115 |
| P00173 | WS00004. | 00177 | 00177 | 00177 | 00177 | 00177 | 00177 | 00177 | 00177 | 00177 |
| P00210 | WS00005. | 00217 | 00217 | 00217 | 00217 | 00217 | 00217 | 00217 | 00217 | 00217 |
| P00312 | WS00006. | 00327 | 00327 | 00327 | 00327 | 00327 | 00327 | 00327 | 00327 | 00327 |
| P00352 | WS00007. | 00375 | 00375 | 00375 | 00375 | 00375 | 00375 | 00375 | 00375 | 00375 |
| P00416 | WS00010. | 00443 | 00443 | 00443 | 00443 | 00443 | 00443 | 00443 | 00443 | 00443 |
| P00465 | WS00011. | 00477 | 00477 | 00477 | 00477 | 00477 | 00477 | 00477 | 00477 | 00477 |
| P00523 | WS00012. | 00546 | 00546 | 00546 | 00546 | 00546 | 00546 | 00546 | 00546 | 00546 |
| P00554 | WS00013. | 00572 | 00572 | 00572 | 00572 | 00572 | 00572 | 00572 | 00572 | 00572 |
| P00622 | WS00014. | 00637 | 00637 | 00637 | 00637 | 00637 | 00637 | 00637 | 00637 | 00637 |

00347 SYMBOLS

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FTMS-5

```

FUNCTION AGDF (A1,Y1,XC,Y2)
      CSUBR
      AGDF 20EC70 *****
      C=.01745329252
      A1=X1*2
      A2=X2*2
      D=0.1745329252*(Y1-Y2)*C
      AGDF=ACOSF(SINF(A1)*SINF(A2)+COSF(A1)*COSF(A2)*COSF(U1))
      AGDF=ABSF(AGDF)
      RETURN
      END

```

1000  
64000  
2000  
3000  
4000  
5000  
6000  
7000  
8000  
9000

5.4TS

AGDF

PROGRAM LENGTH  
ENTRY POINTS  
EXTERNAL SYMBOLS

AGDF

QBUDICT.  
DIFFLONG  
SINF  
COSF  
ACOSF

IDENT

U0127  
U0003

AGDF

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AGDF

5.4TS

|                 |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|
| P00123 A1       | 00012 | 00031 |       |       |       |       |
| P00124 A2       | 00015 | 00034 |       |       |       |       |
| X00005 AC9SF    | 00045 |       |       |       |       |       |
| F00003 AGDF     | 00003 |       |       |       |       |       |
| F00053 BEGIN.   | 00101 | 00114 |       |       |       |       |
| P00125 C        | 00010 | 00014 | 00021 |       |       |       |
| X00004 C9SF     | 00032 | 00035 | 00041 |       |       |       |
| P00126 D        | 00021 | 00040 |       |       |       |       |
| P00001 DICT.    | 00005 | 00017 | 00024 | 00027 | 00033 | 00042 |
| X00002 DIFFLNG  | 00016 |       |       |       | 00036 | 00046 |
| P00102 ENDING.  | 00006 | 00051 | 00054 |       | 00055 | 00055 |
| P00000 EXIT.    | 00106 |       |       |       |       |       |
| P00010 FP000C1. | 00065 |       |       |       |       |       |
| P00013 FP000C2. | 00074 |       |       |       |       |       |
| P00020 FP000C3. | 00071 |       |       |       |       |       |
| P00117 GETPL.   | 00060 | 00076 |       |       |       |       |
| P00107 GETPU.   | 00063 | 00072 | 00113 |       |       |       |
| P00053 INITIAL. | 00006 |       |       |       |       |       |
| P00120 .ERASER. | 00025 | 00030 | 00034 | 00037 | 00037 | 00043 |
| P00067 PF000C2. | 00064 |       |       |       |       | 00044 |
| P00072 PF000C3. | 00070 |       |       |       |       |       |
| P00076 PF000C4. | 00073 |       |       |       |       |       |
| P00101 PF000C5. | 00077 |       |       |       |       |       |
| X00001 Q8CDICT. | 00000 | 00004 |       |       |       |       |
| X00003 SINP     | 00023 | 00026 |       |       |       |       |
| P00052 VALUE.   | 00047 | 00051 |       |       |       |       |
| P00003 X1       | 00011 |       |       |       |       |       |
| P00003 X2       | 00013 |       |       |       |       |       |
| P00003 Y1       | 00020 |       |       |       |       |       |
| P00003 Y2       | 00020 |       |       |       |       |       |
| 00036 SYMBOLS   |       |       |       |       |       |       |



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SUBROUTINE BOUNDARY
  CSUBR  BOUNDARY ZUECTO *****
  C      COMPUTE ZONE CROSSINGS FOR LINE SEGMENT DESIGNATED IN /LINE/ *****
  CUSE   BOUND ZUECTO *****
  C      COMMON/BOUND/X1,Y1,X2,Y2,I2N,AR,YR,NZ,NZIT *****
  CEND   BOUND *****
  C      EQUIVALENCE (FLAT1,X1), (FLAT2,X2), (LZONE,I2N) *****
  C      1, (INTL1,AR), (INTL2,NZ), (INTL3,NZ) *****
  CUSE   BOUNDPT ZUECTO *****
  C      COMMON/BOUNDPT/ZLAT1(20),ZLON1(20),ZLAT2(20),ZLON2(20),KK *****
  CEND   BOUNDPT *****
  C      1, (ICURZCN,CHECK,ETA,CROSSING(2,10),AJZONE(20),LNG *****
  CUSE   MASTER 16FEB71 *****
  C      COMMON/PASTER/INDATE,IDENTNO,ISIDE,NRPT,NCORR,NDPEN,NRECOVER *****
  C      1,AREF,NBNDY,NHEG,NTYPE,NRGUP,NTGBASE,NPAYLCAU,NASHIYPE,NMHDTYPE *****
  C      2,NTANKBAS,NCOMPLEX,NCCLASS,NALERT,NIGTS,NCORTYPE,NCNTRY *****
  C      MASTER *****
  C      9A 16FEB71 *****
  C      UNTIL TANKER PROCESSING BEGINS, THIS BLOCK CONTAINS THE DATA *****
  C      DEFINED HERE. IT IS A COMBINATION OF SEVERAL FORMER BLOCKS, *****
  C      ENABLING REUSE OF THIS SPACE DURING SUBROUTINE PLANTANK. *****
  C      THE REDEFINITION IS IN BLOCK 9A. *****
  C ***** NOTE THAT BLOCK 9A AND BLOCK 9A ARE THE SAME AND MUST BE *****
  C      MODIFIED SIMULTANEOUSLY *****
  C      COMMON /9/ LLAUNDEC(90),JTPX(90),MLAX(90),MLQ(90),ZTX(90),TZNR(90), *****
  C      1 MDTX(90),KPLX(90),JTPX(90),MLAX(90),MLQ(90),ZTX(90),TZNR(90), *****
  C      2 IMHX(90),PAX(90),CHTX(90), *****
  C      3 BP,INK(200),BPLAT(200),BPLONG(200),BPLONG(200),BPLONG(200), *****
  C      4 NEXTZONE(200), *****
  C      5 KQUNT(30),IMAP(30),MCUNT(50),JMAP(50), *****
  C      6 JAPTYPE(250),MAPLAT(250),MAPLONG(250),MAPDIST(250) *****
  C      TYPE INTEGER BPLINK,BPZONE *****
  C      LINES 3 - 4 CORRESPOND TO /BOUNDARY/ ON BASFILE *****
  C      LINE 5 TO /CHARTER/, LINE 6 TO /HAPPEN/ *****
  C      9A *****
  C      DIMENSION ALPHAST(10),BETAST(10),LIND(10) *****
  C      DIMENSION LEGIND(20) *****
  C      TYPE INTEGER RINZONE,AJZONE,BPTNG *****
  C      DATA (EFSLN,00000001) *****
  C      DATA (ICORCHK,324000) *****
  C      DIMENSION JUEGZONE(100) *****
  C      DATA ITAB=0) *****
  C      COMMON/ITAB/ITAB *****
  C      IF (ITAB)100,1 *****
  C      1 ITAB=1 *****
  C      DC 2 1=1,100 *****
  C      2 JUEGZONE(I)=0 *****
  C      DC 10 1=1,NENDMY *****
  C      KZONE=BPZONE(I) *****
  C      IF (KZONE-67,100)3,4 *****
  C      3 PRINT 31,KZONE *****
  C      31 FORMAT(31M MORE THAN 100 ZONES. KZONE = ,15,46M REDIMENSION JUEG *****
  C      1ZCN IN SUBROUTINE BOUNDARY.) *****
  C      CALL ABCRT *****
  C      4 IF (JUEGZONE(KZONE))10,5 *****
  C      5 JUEGZONE(KZONE)=1 *****

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10 CONTINUE
100 CONTINUE ZONE INDEX
   CALL SNAPIT(4,I)
   IF (IZONE.EQ.0) 98,99
498 RTZONE=0
   IZIT =0
   RETURN
499 CONTINUE
   FLON1 = Y1
   FLON2 = Y2
   ICURZON=IZONE
   ZERO=-EPSLN
   ONE=1.*EPSLN
   LNC=0
   IF (JBEGZONE(IZONE)) 529,528
528 CONTINUE
501 PRINT 503,IZONE
503 FORMAT(25H DATA NOT FOUND FOR ZONE ,I4)
   IZNNZN=0
   XR=X2
   YR=Y2
   RETURN
529 CONTINUE
   NHCLD=JBEGZONE(IZONE)
5332 IND=BP LINK(N)
   LNC=LNC+1
   ZLAT1(LNC)=BPLAT(N)
   ZLON1(LNC)=BPLOM(N)
   ZLAT2(LNC)=BPLAT(INDX)
   ZLON2(LNC)=BPLOM(INDX)
   AJZONE(1LNC)=NEXTZONE(N)
   IF (INDX.EQ.NHCLD) 533 5331
5331 N=INDX
   IF (LNC.GT.20) 5333,5334
5333 PRINT 5334,IZONE
5334 FORMAT(35H INCOMPLETE BOUNDARY DATA FOR ZONE ,I4)
   IZNNZN=IZIT+0
   XR=X2 $ YR=Y2
   RETURN
533 CONTINUE
   CC 600 K=1,LNC
   DIFFLAG = ZLON1(K)-ZLON2(K)
   DIFFLNG = DIFFLAG*DIFFLNG
   IF (DIFFLNG.GT.CORCHK) 901,603
600 CONTINUE
   ISPLIT=0
   GO TO 613
601 ISPLIT=1
613 CONTINUE
   DIFFLIN=Y1-Y2
   DIFFLIN=DIFFLIN*DIFFLIN
   IF (DIFFLIN.GT.CORCHK) 906,609
606 CONTINUE
   ISPLIT=1
   GO TO 65C

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609 ISPLIT=0
650 IF (ISPLIT.GT.0) 651,654
651 IF (FLCN1.LT.180.) 607,608
607 FLCN1=FLCN1+360.
608 IF (FLCN2.LT.180.) 652,653
652 FLCN2=FLCN2+360.
653 CONTINUE
      DC 602 K=1,LNC
      IF (ZLCN1(K).LT.180.) 603,604
603 ZLCN1(K)=ZLCN1(K)+360.
604 IF (ZLCN2(K).LT.180.) 605,602
605 ZLCN2(K)=ZLCN2(K)+360.
602 CONTINUE
654 CONTINUE
      IZIT=0
      MINZONE=1ZONE
      MINLAT=FLAT2
      RTNLCN=1Z2
      C DETERMINE WHETHER LINK CROSSES ZONE BOUNDARY
      NL=0
      DC 515 K=1,LNC
      KK=K
      CALL SNAPIT(4,2)
      UX=FLAT2-FLAT1
      VY=(540.-FLCN2)-(540.-FLCN1)
      VX=ZLAT2(K)-ZLAT1(K)
      VY=(540.-ZLCN2(K))-(540.-ZLCN1(K))
      CHECK=UX*VY-UY*VX
      CALL SNAPIT(4,3)
      IF (CHECK) 515,516,516
516 NL=NL+1
      LEGIND(NL)=K
515 CONTINUE
518 IF (NL.EQ.0) 517,518
518 CONTINUE
      LNC=0
      JJ=1
513 CONTINUE
      DC 506 J=JJ,NL
      K=LEGIND(J)
      A1=FLAT1-FLAT2
      A2=FLCN1-FLCN2
      A3=ZLAT2(K)-ZLAT1(K)
      A4=ZLCN2(K)-ZLCN1(K)
      A5=ZLAT2(K)-FLAT2
      A6=ZLCN2(K)-FLCN2
      DEE=A1*A4-A3*A2
      IF (DEE.EQ.0.) 506,514
514 CONTINUE
      ALPHA=A5*A4-A3*A6
      ALPHA=ALPHA/DEE
      IF (ALPHA.LT.-ONE.AND.ALPHA.GT.0) 505,506
505 BETA=A1*A6-A5*A2
      BETA=BETA/DEE
      CALL SNAPIT(4,4)
      IF (BETA.LT.-ONE.AND.BETA.GT.-ZERO) 507,506

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506 CONTINUE
   IF (LNC.EQ.0) 517,534
534 ALPHAMIN=ALPHAST(1)  3  ISAVE=1
   DC 536 4=2,LNC
   IF (ALPHAST(M).GT.ALPHAMIN) 535,536
535 ALPHAMIN=ALPHAST(M)
   ISAVE=M
536 CONTINUE
   IF (BETAST(ISAVE).EQ.1.) 537,540
537 CONTINUE
   DC 539 4=1,LNC
   IF (BETAST(M).EQ.0.) AND .ALPHAST(M).EQ.ALPHAMIN) 538,539
538 ISAVE=M
   GC TO 540
539 CONTINUE
540 RINLAT=CROSSING(1,ISAVE)
   RINLON=CROSSING(2,ISAVE)
   IF (RINLON.GT.360.) 610,611
610 RINLON=RINLON-360.
611 CONTINUE
   KK=LINLND(ISAVE)
   RINZONE=AJZONE(KK)
517 CONTINUE
   CALL SNAPIT(4,0)
   IF (FLON2.GT.360.) 655,656
655 FLON2=FLON2-360.
656 IF (FLON1.GT.360.) 657,658
657 FLON1=FLON1-360.
658 CONTINUE
   RETURN
507 KK=K
   J=J+1
   IF (BETA.GT.(1.-EPSLN)) 522,523
522 BETA=1.
   GC TO 525
523 IF (BETA.L1.EPSLN) 524,525
524 BETA=0.
525 CONTINUE
   IF (BETA*ALPHA.EQ.0.) 513,512
C   COMPUTE POINT OF CROSSING
512 CONTINUE
   A1=FLAT2-FLAT1
   A4=1.044
   A5=FLON1*FLAT2-FLON2*FLAT1
   A6=ZLAT2(KK)*ZLON1(KK)-ZLAT1(KK)*ZLON2(KK)
   DEE=A1*A4-A2*A3
   LNC=LNC+1
   CROSSING(1,LNC)=(A1*A6-A5*A3)/DEE
   CROSSING(2,LNC)=(A5*A4-A2*A6)/DEE
   ALPHAST(LNC)=ALPHA
   BETAST(LNC)=BETA
   LIND(LNC)=KK
   IZIT=1
   CALL SNAPIT(4,2)
   CALL SNAPIT(4,5)
   GC TO 513

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144000  
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198000

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END

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5.415 BOUNDARY

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6

IDENT BOUNDARY

U1247  
U0273  
U0011  
U0175  
U0027  
U7304  
U0001

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

BOUNDARY

BOUND  
BOUNDPT  
MASTER  
9

EXTERNAL SYMBOLS

ITAB  
THEND.  
QWQDICT.  
ABORT  
SNAPIT  
STH.  
QNSINGL.

5.415 BOUNDARY

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EO 0

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|                 |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P01207 A1       | 00644 | 00661 | 00700 | 01060 | 01075 | 01104 |       |       |       |
| P01210 A2       | 00645 | 00663 | 00702 | 01077 | 01113 |       |       |       |       |
| P01211 A3       | 00650 | 00662 | 00670 | 01077 | 01106 |       |       |       |       |
| P01212 A4       | 00653 | 00661 | 00667 | 01061 | 01061 | 01076 | 01112 |       |       |
| P01213 A5       | 00656 | 00666 | 00702 | 01067 | 01106 |       |       |       |       |
| P01214 A6       | 00660 | 00670 | 00701 | 01075 | 01105 | 01114 |       |       |       |
| X00003 A8GRT    | 00326 |       |       |       |       |       |       |       |       |
| C00150 AJZONE   | 00430 | 00431 | 01012 |       |       |       |       |       |       |
| P01215 ALPHA    | 00671 | 00672 | 00675 | 01053 | 01117 |       |       |       |       |
| P01216 ALPHAMIN | 00731 | 00742 | 00745 | 00763 |       |       |       |       |       |
| P00003 ALPHAST  | 00730 | 00741 | 00744 | 00763 | 01121 |       |       |       |       |
| P01166 BEGIN.   | 01170 |       |       |       |       |       |       |       |       |
| C00123 BETA     | 00703 | 00704 | 00705 | 00706 | 00713 | 00716 | 01040 | 01043 | 01043 |
|                 | 01045 | 01045 | 01050 | 01051 | 01052 | 01052 | 01122 |       |       |
|                 | 00753 | 00760 | 01123 |       |       |       |       |       |       |
| P00015 BETA5T   | 00273 |       |       |       |       |       |       |       |       |
| C03434 BPLAT    | 00416 | 00416 | 00423 | 00424 |       |       |       |       |       |
| C03124 BPLINK   | 00411 | 00411 |       |       |       |       |       |       |       |
| C03744 BPLONG   | 00420 | 00421 | 00425 | 00426 |       |       |       |       |       |
| C04254 BPZONE   | 00312 |       |       |       |       |       |       |       |       |
| C00122 CHECK    | 00607 | 00610 | 00615 |       |       |       |       |       |       |
| C02772 CMTX     |       |       |       |       |       |       |       |       |       |
| P01141 CNVRT11. | 00323 | 00375 | 00445 |       |       |       |       |       |       |
| P00232 CORCHK   | 00464 | 00501 |       |       |       |       |       |       |       |
| P01217 COUNT.   | 00530 | 00531 | 00737 | 00740 |       |       |       |       |       |
| P00233 CRFMT.   | 00326 | 00400 | 00450 |       |       |       |       |       |       |
| C00124 CROSSING | 00775 | 00775 | 00777 | 00777 | 01110 | 01115 | 01116 |       |       |
| P01220 DEE      | 00664 | 00672 | 00705 | 01100 | 01107 |       |       |       |       |
| P00001 DICT.    | 00275 | 00320 | 00325 | 00327 | 00341 | 00372 | 00442 | 00562 | 00612 |
|                 | 00710 | 01015 | 01130 | 01134 |       |       |       |       |       |
|                 | 00477 | 00477 | 00500 | 00500 |       |       |       |       |       |
|                 | 00462 | 00462 | 00463 | 00463 |       |       |       |       |       |
| P01221 DIFFLIN  |       |       |       |       |       |       |       |       |       |
| P01222 DIFFLNG  | 00276 | 00350 | 00404 | 00454 | 01032 | 01167 | 01170 |       |       |
| C00264 DISTORE  | 00357 | 00361 | 01037 | 01046 |       |       |       |       |       |
| P00231 EPSLN    | 01172 |       |       |       |       |       |       |       |       |
| P00000 EXIT.    | 00566 | 00542 | 00642 | 01057 | 01065 |       |       |       |       |
| C00000 FLAT1    | 00551 | 00565 | 00643 | 00643 | 00654 | 01056 | 01062 | 01063 |       |
| C00002 FLAT2    | 00352 | 00512 | 00515 | 00516 | 00571 | 01030 | 01031 | 01062 |       |
| P01223 FLON1    | 00354 | 00517 | 00522 | 00523 | 00570 | 01020 | 01023 | 01024 | 01064 |
| P01224 FLON2    |       |       |       |       |       |       |       |       |       |
| P00233 FORMAT.  |       |       |       |       |       |       |       |       |       |
| P00326 G600000. | 00316 |       |       |       |       |       |       |       |       |
| P00400 G600001. | 00370 |       |       |       |       |       |       |       |       |
| P00450 G600002. | 00440 |       |       |       |       |       |       |       |       |
| C06712 HAPDIS   |       |       |       |       |       |       |       |       |       |
| C05726 HAPLAT   |       |       |       |       |       |       |       |       |       |
| C06320 HAPLOG   |       |       |       |       |       |       |       |       |       |
| C01320 HDIX     |       |       |       |       |       |       |       |       |       |
| C01736 HMAX     |       |       |       |       |       |       |       |       |       |
| C02070 HLOX     |       |       |       |       |       |       |       |       |       |
| P01225 I        | 00303 | 00304 | 00310 | 00311 | 00333 | 00335 |       |       |       |
| C00121 ICURZON  | 00356 | 00356 |       |       |       |       |       |       |       |
| C00001 IDENTNG  |       |       |       |       |       |       |       |       |       |
| P00675 IF00001. |       |       |       |       |       |       |       |       |       |

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|-----------------|----|---|----------|---|
| P00716 IF00002. |    |   |          |   |
| P00762 IF00003. |    |   |          |   |
| C05132 IMAP     |    |   |          |   |
| C00000 INDATE   |    |   |          |   |
| C00000 ILAUNDEC |    |   |          |   |
| P01142 IN00014. |    |   |          |   |
| P01143 IN00016. |    |   |          |   |
| P01226 INX      |    |   |          |   |
| P01167 INITIAL. |    |   |          |   |
| P01227 ISAVE    |    |   |          |   |
| C00002 ISIDE    |    |   |          |   |
| P01230 ISPLIT   |    |   |          |   |
| C00000 ITAB     |    |   |          |   |
| C62506 IMX      |    |   |          |   |
| C00010 IZIT     |    |   |          |   |
| C00004 IZN      |    |   |          |   |
| C00004 IZONE    |    |   |          |   |
| P00301 .1       |    |   |          |   |
| P00335 .10      |    |   |          |   |
| P00340 .100     |    |   |          |   |
| P00305 .2       |    |   |          |   |
| P00316 .3       |    |   |          |   |
| P00331 .4       |    |   |          |   |
| P00346 .498     |    |   |          |   |
| P00351 .499     |    |   |          |   |
| P00333 .5       |    |   |          |   |
| P00370 .501     |    |   |          |   |
| P00700 .505     |    |   |          |   |
| P00722 .506     |    |   |          |   |
| P01033 .507     |    |   |          |   |
| P01056 .512     |    |   |          |   |
| P00636 .513     |    |   |          |   |
| P00666 .514     |    |   |          |   |
| P00623 .515     |    |   |          |   |
| P00617 .516     |    |   |          |   |
| P01014 .517     |    |   |          |   |
| P00631 .518     |    |   |          |   |
| P01042 .522     |    |   |          |   |
| P01045 .523     |    |   |          |   |
| P01050 .524     |    |   |          |   |
| P01052 .525     |    |   |          |   |
| P00370 .528     |    |   |          |   |
| P00405 .529     |    |   |          |   |
| P00455 .533     |    |   |          |   |
| P00434 .5331    |    |   |          |   |
| P00410 .5332    |    |   |          |   |
| P00440 .5333    |    |   |          |   |
| P00730 .534     |    |   |          |   |
| P00744 .535     |    |   |          |   |
| P00750 .536     |    |   |          |   |
| P00755 .537     |    |   |          |   |
| P00765 .538     |    |   |          |   |
| P00771 .539     |    |   |          |   |
| 00774 01164     |    |   |          |   |
| 01110 01155     |    |   |          |   |
| 00412 00423     |    |   |          |   |
| 00276 00746     |    |   |          |   |
| 00732 00752     |    |   |          |   |
| 00472 00474     |    |   |          |   |
| 00233 00277     |    |   |          |   |
| 00350 00450     |    |   |          |   |
| 00401 00452     |    |   |          |   |
| 00344 00344     |    |   |          |   |
| 00444 00550     |    |   |          |   |
| 00332 00332     |    |   |          |   |
| 00300 00300     |    |   |          |   |
| 00315 00315     |    |   |          |   |
| 00345 00345     |    |   |          |   |
| 00665 00673     |    |   |          |   |
| 00721 01137     |    |   |          |   |
| 01054 01055     |    |   |          |   |
| 00665 00665     |    |   |          |   |
| 00616 00615     |    |   |          |   |
| 00630 00627     |    |   |          |   |
| 01041 01041     |    |   |          |   |
| 01044 01047     |    |   |          |   |
| 00367 00433     |    |   |          |   |
| 00433 00437     |    |   |          |   |
| 00437 00726     |    |   |          |   |
| 00742 00743     |    |   |          |   |
| 00761 00764     |    |   |          |   |
| 00432 00434     |    |   |          |   |
| 00752 01007     |    |   |          |   |
| 00507 00507     |    |   |          |   |
| 00302 00302     |    |   |          |   |
| 00550 01126     |    |   |          |   |
| 00547 00550     |    |   |          |   |
| 00355 00355     |    |   |          |   |
| 00355 00365     |    |   |          |   |
| 00374 00374     |    |   |          |   |
| 00405 00405     |    |   |          |   |
| 00444 00444     |    |   |          |   |
| 00676 00676     |    |   |          |   |
| 00677 00677     |    |   |          |   |
| 00714 00714     |    |   |          |   |
| 00715 00715     |    |   |          |   |
| 00720 00720     |    |   |          |   |
| 00674 00674     |    |   |          |   |
| 01047 01047     |    |   |          |   |





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|        |          |       |       |       |       |       |       |       |       |
|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| CO0004 | NCRH     |       |       |       |       |       |       |       |       |
| CO0025 | NCRTYPE  |       |       |       |       |       |       |       |       |
| CO0005 | NDPEN    |       |       |       |       |       |       |       |       |
| CO0564 | NEXTZONE | 00427 | 00430 |       |       |       |       |       |       |
| CO0013 | NORGRP   |       |       |       |       |       |       |       |       |
| P01237 | NHCLD    | 00407 | 00432 |       |       |       |       |       |       |
| P01240 | NL       | 00554 | 00517 |       |       |       |       |       |       |
| CO0015 | NLAYLCAO |       |       | 00620 | 00626 | 00723 |       |       |       |
| CO0006 | NRECOVEH |       |       |       |       |       |       |       |       |
| CO0007 | NHEF     |       |       |       |       |       |       |       |       |
| CO0011 | NREG     |       |       |       |       |       |       |       |       |
| CO0003 | NRTPT    |       |       |       |       |       |       |       |       |
| CO0020 | NTANKBAS |       |       |       |       |       |       |       |       |
| CO0024 | NIGTS    |       |       |       |       |       |       |       |       |
| CO0014 | NYCTEASE |       |       |       |       |       |       |       |       |
| CO0012 | NTYPE    |       |       |       |       |       |       |       |       |
| CO0017 | NHWDTYPE |       |       |       |       |       |       |       |       |
| CO0007 | NZN      | 00400 | 00401 | 00451 |       |       |       |       |       |
| P01241 | CNE      | 00361 | 00673 | 00714 |       |       |       |       |       |
| CO2640 | PAX      |       |       |       |       |       |       |       |       |
| X00002 | QBDDICT  | 00000 | 00274 |       |       |       |       |       |       |
| X00006 | UNSLGL   | 0114C |       |       |       |       |       |       |       |
| P01145 | RELCCA   | 00330 | 00343 | 00564 | 00614 | 00712 | 01017 | 01132 | 01136 |
| CO0005 | RTNLAT   | 00552 | 00776 | 00776 |       |       |       |       |       |
| CO0006 | RTNLCA   | 00553 | 01000 | 01000 | 01001 | 01004 | 01004 | 01006 | 01006 |
| CO0007 | RTNZNE   | 00346 | 00347 | 00551 | 01012 | 01013 |       |       |       |
| X00004 | SNAPIT   | 0034C | 00361 | 00511 | 00707 | 01014 | 01127 | 01133 |       |
| X00005 | STH      | 00317 | 00371 | 00441 |       |       |       |       |       |
| X00001 | TFEND    | 00324 | 00376 | 00446 |       |       |       |       |       |
| CO0132 | TIMELAUN |       |       |       |       |       |       |       |       |
| P00335 | TS00002  | 00310 |       |       |       |       |       |       |       |
| P00467 | TS00003  | 00456 |       |       |       |       |       |       |       |
| P00547 | TS00004  | 00527 |       |       |       |       |       |       |       |
| P00624 | TS00005  | 00556 |       |       |       |       |       |       |       |
| P00723 | TS00006  | 00637 |       |       |       |       |       |       |       |
| P00752 | TS00007  | 00736 |       |       |       |       |       |       |       |
| P00772 | TS00010  | 00756 |       |       |       |       |       |       |       |
| CO2354 | TZNX     |       |       |       |       |       |       |       |       |
| CO2222 | TZTX     |       |       |       |       |       |       |       |       |
| P01150 | UP00004  | 00364 | 00415 | 00533 | 01103 | 01144 | 01152 | 01153 | 01156 |
| P01160 | UP00013  | 00733 | 00747 | 00767 | 01161 | 01162 | 01163 | 01165 | 01166 |
| P01242 | UX       | 00567 | 00604 |       |       |       |       |       |       |
| P01243 | UY       | 00573 | 00600 |       |       |       |       |       |       |
| P01244 | VX       | 00576 | 00606 |       |       |       |       |       |       |
| P01245 | VY       | 00604 | 00605 |       |       |       |       |       |       |
| P00305 | WS00001  | 00307 |       |       |       |       |       |       |       |
| P00311 | WS00002  | 00337 | 00337 |       |       |       |       |       |       |
| P00457 | WS00003  | 00470 | 00470 |       |       |       |       |       |       |
| P00532 | WS00004  | 00546 |       |       |       |       |       |       |       |
| P00557 | WS00005  | 00625 | 00625 |       |       |       |       |       |       |
| P00640 | WS00006  | 00724 | 00724 |       |       |       |       |       |       |
| P00741 | WS00007  | 00751 |       |       |       |       |       |       |       |
| P00757 | WS00016  | 00773 | 00773 |       |       |       |       |       |       |
| CO0000 | XI       |       |       |       |       |       |       |       |       |

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|--------------|----------|----|---|----------|----|
| C00002 X2    |          |    |   |          |    |
| C00005 XR    |          |    |   |          |    |
| C00001 Y1    |          |    |   |          |    |
| C00003 Y2    |          |    |   |          |    |
| C00006 YR    |          |    |   |          |    |
| P01246 ZERG  |          |    |   |          |    |
| C00000 ZLAT1 |          |    |   |          |    |
| C00050 ZLAT2 |          |    |   |          |    |
| C00024 ZLON1 |          |    |   |          |    |
| C00074 ZLON2 |          |    |   |          |    |

00333 SYMBOLS

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FTW5.5

```

SUBROUTINE CHKSUM(I)
  CSUBR   CHKSUM   20ECTG *****
  C       I = 0 TO CLEAR I TO SUM AND 2 TO PRINT *****
  C       SUMS THE CONTENT OF /JINDATA/IN FIXED POINT *****
  CUSE    DINDATA  20ECTG *****
  C       COMMON/DINDATA/HDT(90),KPL(90),JTP(90),HLA(90),MLC(90),I2I(90),
  C       1T2N(90),PA(90),MHT,NPL *****
  CEND    DINDATA *****
  C       DIMENSION KHECK(630) *****
  C       DATA(MCHK=630) *****
  C       EQUIVALENCE(MDT(1),KHECK(1)) *****
  C       MCHK SET FOR 7 ARRAYS IN /DINDATA/AT 90 EACH *****
  C       IF (I.EQ.0) 10,20 *****
  C       10 KSUM=0 $ RETURN *****
  C       20 IF (I.EQ.1) 30,50 *****
  C       30 DO 40 J=1,MCHK *****
  C       KSUM=KSUM+KHECK(J) *****
  C       40 CONTINUE *****
  C       RETURN *****
  C       50 PRINT 60,KSUM *****
  C       60 FORMAT(//10X,9HCHECKSUM=,116//) *****
  C       RETURN *****
  C       END *****

```

5.4TS CHKSUM

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

CHKSUM

DINDATA

EXTERNAL SYMBOLS

THEND.  
QDDICT.  
STM.  
QNSINGL.

IDENT

U0113

U0015

U1322

CHKSUM

|        |               |       |       |       |       |       |
|--------|---------------|-------|-------|-------|-------|-------|
| P00054 | BEGIN.        | 00072 | 00100 | 00104 |       |       |
| P00015 | CHKSUM        | 00015 |       |       |       |       |
| P00053 | CNVRT1.       | 00046 |       |       |       |       |
| P0011J | COUNT.        | 00032 | 00033 |       |       |       |
| P00004 | CRFNT.        | 00051 |       |       |       |       |
| P00001 | DICT.         | 00017 | 00043 | 00050 | 00057 | 00060 |
| P00073 | ENDING.       | 00020 | 00024 | 00040 | 00051 | 00054 |
| P00000 | EXIT.         | 00076 |       |       |       |       |
| P00004 | FORNAT.       |       |       |       |       |       |
| P00021 | FP00001.      | 00066 | 00067 |       |       |       |
| P00025 | FP00002.      | 00070 | 00071 |       |       |       |
| P00107 | GETPL.        | 00061 |       |       |       |       |
| P00077 | GETPU.        | 00064 | 00103 |       |       |       |
| P00051 | GG00000.      | 00041 |       |       |       |       |
| C00000 | HDT           |       |       |       |       |       |
| C00016 | HLA           |       |       |       |       |       |
| C00550 | MLG           |       |       |       |       |       |
| P00004 | I             | 00021 | 00025 |       |       |       |
| P00054 | INITIAL.      | 00020 |       |       |       |       |
| P00023 | .10           |       |       |       |       |       |
| P00025 | .20           | 00022 |       |       |       |       |
| P00027 | .30           |       |       |       |       |       |
| P00037 | .40           |       |       |       |       |       |
| P00041 | .50           | 00026 |       |       |       |       |
| P00004 | .60           | 00044 |       |       |       |       |
| P00111 | J             | 00030 | 00032 |       |       |       |
| C00264 | JTP           |       |       |       |       |       |
| C00000 | KHECK         | 00035 | 00035 |       |       |       |
| C00132 | KPL           |       |       |       |       |       |
| P00112 | KSJM          | 00024 | 00034 | 00036 | 00045 |       |
| P00003 | MCHK          | 00030 |       |       |       |       |
| C01320 | MHT           |       |       |       |       |       |
| C01321 | NPL           |       |       |       |       |       |
| C01166 | PA            |       |       |       |       |       |
| P00072 | PF00002.      | 00065 |       |       |       |       |
| X00002 | Q800001.      | 00000 | 00014 |       |       |       |
| X00004 | QNSINGL.      | 00052 |       |       |       |       |
| X00003 | STH.          | 00042 |       |       |       |       |
| X00001 | TEND.         | 00047 |       |       |       |       |
| P00040 | TS00001.      | 00031 |       |       |       |       |
| C01034 | TZN           |       |       |       |       |       |
| C00702 | TZI           |       |       |       |       |       |
| P00034 | WS00001.      | 00037 |       |       |       |       |
|        | W0053 SYMBCLS |       |       |       |       |       |

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SUBROUTINE CLINDATA
  CSUBR      CLINDATA 16FEB71
  C          TC CLEAR AND INITIALIZE /INDATA/
  CUSE       DINDATA 2DEC70
  COMMON/INDATA/INDATA(90),JTP(90),HLA(90),HLC(90),TZT(90),
  1TZN(90),PA(90),MHT,NPL
  CEND       DINDATA
  CUSE       INDATA 16FEB71
  COMMON /INDATA/ INDATA,INBASE,INDV,IDUM1(2),ILAST,IDUM2(2),
  1ITYPE,ICLASS,IREG,IALERT,IOUM3(3),IALT,NCMS,IDUM4(3),
  2MFL,MFI,IDUMA(2),NPLAM,IDUM5,INC(80),INDP(80),INUE(80),INTYP(12),
  3XDBZ(12),YDBZ(12),ZDBZ(12),IDUMS(6)
  TYPE INTEGER XDBZ,YDBZ,ZDBZ

  C          DIMENSION ISVY(6)
  EQUIVALENCE (ISVY,INDV) , (FILAST,ILAST)
  CEND       INDATA
  CUSE       EQUIVALENCE (INDATA,ICLEAR)
  KEYLENG 2DEC70
  COMMON /KEYLENG/ LOS, LIN, LDN, LINC, LTK, LMIS, LMC, LDBL
  KEYLENG
  DIMENSION ICLEAR(1)
  DO 1 I=1,LIN
  1 ICLEAR(I)=0
  DO 3 I=1,26
  3 ICLEAR(I)=0
  IALT=1
  DO 2 I=1,LDN
  2 MHT(I)=0
  END

```

1000  
69000  
2000  
3000  
1000  
2000  
3000  
4000  
1000  
2000  
3000  
4000  
5000  
6000  
7000  
8000  
9000  
10000  
11000  
12000  
13000  
14000  
15000  
16000

5.4TS CLINDATA

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

CLINDATA

DINDATA  
INDATA  
KEYLENG

EXTERNAL SYMBOLS

UNWIDICT.

IDENT

W0046  
W0003

U1322  
W0506  
W0010

CLINDATA

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ED

0

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## 5.4TS CLINDATA

|        |               |       |
|--------|---------------|-------|
| CO0032 | TINC          | 00012 |
| PO0020 | TS00001.      | 00031 |
| PQ0037 | TS00003.      |       |
| CO1034 | TZN           |       |
| CO0702 | TZI           |       |
| PO0015 | WS00001.      | 00017 |
| PQ0023 | WS00002.      | 00025 |
| PO0034 | WS00003.      | 00036 |
| CO0426 | XDBZ          |       |
| CO0442 | YDBZ          |       |
| CO0456 | ZDBZ          |       |
|        | 00101 SYMBCLS |       |

```

SUBROUTINE DECAYADD
  CSUHR  DECAYADD 2DEC70
  CUSE   DIMDATA 2DEC70
  COMMON/DIMDATA/ROT(90),KPL(90),JTP(90),HLA(90),HLC(90),TZT(90),
  1  TZN(90),PA(90),MHT,NPL
  CEND
  CUSE   DIMDATA 2DEC70
  COMMON/DISTC/DISTC(20)
  CEND
  CUSE   EVENTS 2DEC70
  COMMON/EVENTS/LAUNCH,LAUNCH,LEFUEL,INSECTOR,LCLATITR,LAUNASM
  *LAUNCH,LAUNCH,LOHI,MISSATTR,LEDCO,LABORT,LENTREF,LEAVEREF
  *IGLOW,IGLOW
  CEND
  CUSE   EVENTS 2DEC70
  COMMON/ISUTOLD/ISUTOLD,KOKO,MYGROUP,MYCORPO,LPAYLOAD,LOPEN
  1  *SPUHC,SPDLCQ,JFCTNG,NHAPC,IBJEC(20),IBDES(20),IBTSK(20),
  2  IBCTYC(20),IBFLG(20)
  CEND
  CUSE   RL 2DEC70
  COMMON/RL/RL,RLM
  CEND
  CUSE   RL 2DEC70
  COMMON/1/DELDIST(6),LPMJORITY(20),LMHT(90),NDCYRU(20),NPSLN,
  *NUMDCYS
  CEND
  CUSE   9A 16FEB71
  C  UNTIL TANKER PROCESSING BEGINS, THIS BLOCK CONTAINS THE DATA
  C  DEFINED HERE. IT IS A COMBINATION OF SEVERAL FORMER BLOCKS.
  C  ENABLING REUSE OF THIS SPACE DURING SUBROUTINE PLANANK.
  C  THE REDEFINITION IS IN BLOCK 9A.
  C ***** NOTE THAT BLOCK VAM AND BLOCK 9A ARE THE SAME AND MUST BE
  C  MODIFIED SIMULTANEOUSLY *****
  COMMON /9/ ILAUNDEC(90),TIMELAUN(90),DISTCRE(90,6),
  1  HOTX(90),KPLX(90),JTPX(90),HLAX(90),HLCX(90),TZTX(90),TZNX(90),
  2  IMX(90),PAX(90),CMIX(90),
  3  BPLINK(200),BPLAT(200),BPLONG(200),BPZONE(200),
  4  NEXTZONE(200),
  5  KOUNT(30),IMAP(30),MOUNT(50),JMAP(50),
  6  JARTYPE(250),HAPLAT(250),HAPLONG(250),HAPDIST(250)
  TYPE INTEGER BPLINK,BPZONE
  LINES 3 + 4 CORRESPOND TO /BOUNDARY/ ON BASFILE
  LINE 5 IS /CHARTER/, LINE 6 TO /HAPPEN/
  9A *****
  C  DIMENSION NEWIND(20)
  C  DIMENSION MHTY(90)
  C  IF (NUMDCYS .LE. 0) 999, 101
  101 CONTINUE
  IGLOW,IGLOW
  CALL ORDER(LPRIORITY,NEWIND,NPSLN)
  CALL REORDER(NEWIND,NPSLN,3,LPRIORITY,LMHT,NUCYRU,0,0,0,0)
  OMTIME=RM/SPDLCQ
  KFLAG=0
  DC 500 K=1,90
  500 MHTY(K)=1.
  IFCUR=0

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```

1LAUN=1
MM=1
MM=2
150 CONTINUE
IF (NUMOCYS)200,200,10
10 DC 300 I=1,NPSLN
NMT=LMT(I)
IF (AFLAG.EQ.1)10,611
C SECOND OR GREATER DECOY ALLOCATION
610 GO TO (612,614,5,615,5,612,5)LPRIORITY(I)
612 ILAUNDEC(NMT)=ILAUN
NUMOCYS=NUMOCYS-1
GO TO 100
615 DISTGR(NMT,ILAUN)=RM
KLAUN=ILAUN
IFCUR=1
614 ILAUNDEC(NMT)=ILAUN
NUMOCYS=NUMOCYS-1
GO TO 100
611 CONTINUE
C FIRST DECOY ALLOCATION
C PRIORITY 1,6 LAUNCHES
GO TO (1,2,5,4,5,1,5)LPRIORITY(I)
1 CONTINUE
11 ILAUNDEC(NMT)=ILAUN
NUMOCYS=NUMOCYS-1
NMT=NMT+MM
GO TO 100
C PRIORITY 2 LAUNCH
2 ILAUNDEC(NMT)=ILAUN
TIMELAUN(NMT)=MUT(NMT)
MUTY(NMT)=0.
DISTGR(NMT,1)=RM
NUMOCYS=NUMOCYS-1
NMT=NMT+MM
GO TO 100
4 IF (NUMOCYS.EQ.1)100,40
C PRIORITY 4 LAUNCH
40 KUST=NOCVHQ(I)
LMT=NMT
KMT=0
DCVTIME=DHIME
45 DCVTIME=DCVTIME-MUT(NMT)
44 IF (DCVTIME)41,41,42
42 NMT=NMT-1
49 IF (JTP(NMT).EQ.IGCH)43,49
47 IF (JTP(NMT).EQ.LEGDCG)410,47
48 NMT=NMT-1
KMT=KMT+1
GO TO 45
410 LMT=LMT-NMT-KMT
DC 411 K=1,LMT
411 DELDIS(KUST)=DELDIS(KUST)-DISTC(K)
DCVTIME=MUT(NMT)
GO TO 46
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3

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43 DELDIS(KDST)=0.
   DCGTIME=MDT(NHT)
   GO TO 46
41 DELDIS(KDST)=DELDIS(KDST)+RM
46 DISTORE(NHT,1)=RM
   ILAUNDEC(NHT)=ILAUN
   TIMELAUN(NHT)=DCGYTIME
   MDT(NHT)=MDT(NHT)+DCGYTIME
   NUMDCGYS=NUMDCGYS+1
   IST=NHT
   NHT=NHT+RM
   GO TO 100
C PRIORITY 5,7,8 LAUNCHES
  5 KDT=NDGYS(1)
  IF (DELDIS(KDST).LE.0.)GO TO 51
51 CONTINUE
   NDCY=DELDIS(KDST)/RM
   NDCY=NDGYS(1)
   NUMDCGYS=NUMDCGYS+NDGYS
   IF (NUMDCGYS)52,53,53
C INSUFFICIENT DECGYS FOR COVERAGE - COVER WITH ALL THAT REMAIN
52 NDCY=NDGYS+NUMDCGYS
53 NUMDCGYS=0
54 NHT=IST4
   DISTORE(NHT,ILAUN)=DISTORE(NHT,ILAUN)+NDCY*RM
   GO TO 100
55 ILAUNDEC(NHT)=ILAUN
   TIMELAUN(NHT)=MDT(NHT)
   MDT(NHT)=0.
56 CONTINUE
   DISTORE(NHT,ILAUN)=NDCY*RM
   IF (ILAUN.GT.1)GO TO 601
600 ILAUN=ILAUN-1
   IF (DISTORE(NHT,ILAUN).EQ.DISTORE(NHT,ILAUN))601,602
C TWO TERMINATIONS REQUIRED FOR ONE LAUNCH
602 NHT=NHT+1
601 CONTINUE
   NHT=NHT+RM
100 LMHT(1)=NHT
   IF (NUMDCGYS)200,200,300
300 CONTINUE
C SUFFICIENT DECGYS REMAIN FOR ANOTHER ALLOCATION
   NM=NM+0
   ILAUN=ILAUN+1
   IF (ILAUN.GT.6)630,631
630 PRINT 632
632 FORMAT(62)NUMBER OF DECGY LAUNCHES EXCEEDS CAPACITY OF DECGY ALLC
   *CATION)
   RETURN
631 CONTINUE
   KFLAG=1
   GO TO 150
200 CONTINUE
   IF (IFOUR)622,621
622 CONTINUE

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131000  
132000

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```
JLAUN=KLAUN-1
IF(DISTORE(IIST,KLAUN).EQ.DISTORE(IIST,JLAUN))621,620
C SECOND OR GREATER ALLOCATION CAUSED PRIORITY 4.8 LAUNCH TO REQUIRE
C TWO TERMINATIONS
620 MHT=MHT+1
621 CONTINUE
C UPDATE TIME ARRAY
DC 400 K=1,90
IF(MDTY(K))400,401,401
401 MDT(K)=MDTY(K)
400 CONTINUE
999 CONTINUE
RETURN
END
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133000  
134000  
135000  
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140000  
141000  
142000  
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144000  
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146000

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2450

IOENT DECYADU

PROGRAM LENGTH  
 ENTRY POINTS  
 BLOCK NAMES

J0745  
 J0174  
 J1322  
 J0024  
 J0020  
 J0157  
 J0002  
 J0212  
 J7304

DECYADU  
 DINDATA  
 OLSTC  
 EVENTS  
 IOUTGLO  
 RL  
 1  
 9

EXTERNAL SYMBOLS  
 Q1Q1Q1Q0  
 THENO.  
 QRODICT.  
 CHUEN  
 REORDER  
 SYN.

5.475 DECCYADD

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ED 0

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| Address | Operation | Value 1 | Value 2 | Value 3 | Value 4 | Value 5 | Value 6 |
|---------|-----------|---------|---------|---------|---------|---------|---------|
| P00706  | BEGIN.    |         |         |         |         |         |         |
| C03434  | BPLAT     |         |         |         |         |         |         |
| C03124  | BPLINK    |         |         |         |         |         |         |
| C03744  | BPLONG    |         |         |         |         |         |         |
| C04254  | BPZONE    |         |         |         |         |         |         |
| C02772  | CMTX      |         |         |         |         |         |         |
| P00721  | COUNT.    | 00407   |         |         |         |         |         |
| P00161  | CRFMT.    | 00401   |         |         |         |         |         |
| P00722  | DCOYTIME  | 00350   | 00425   | 00437   | 00442   |         |         |
| P00174  | DECCYADD  | 00347   |         |         |         |         |         |
| C00000  | DELOIS    | 00410   | 00421   | 00422   | 00427   | 00431   | 00457   |
| P00723  | DNIME     | 00460   |         |         |         |         |         |
| P00001  | DICT.     | 00222   |         |         |         |         |         |
| C00000  | DISTC     | 00176   |         |         |         |         |         |
| C00264  | DISTORE   | 00411   |         |         |         |         |         |
| P00710  | ENDING.   | 00267   |         |         |         |         |         |
| P00000  | EXIT.     | 00543   |         |         |         |         |         |
| P00161  | FORMAT.   | 00177   |         |         |         |         |         |
| P00601  | GG00000.  | 00711   |         |         |         |         |         |
| C06712  | HAP01ST   | 00573   |         |         |         |         |         |
| C05726  | HAPLAT    |         |         |         |         |         |         |
| C06320  | HAPLONG   |         |         |         |         |         |         |
| C00000  | HOT       |         |         |         |         |         |         |
| C01320  | MDTX      | 00323   | 00324   | 00351   | 00352   | 00415   | 00424   |
| P00027  | MDTY      | 00523   | 00626   | 00626   |         | 00441   | 00522   |
| C00416  | MLA       |         |         |         |         |         |         |
| C01736  | MLAX      | 00227   | 00326   | 00443   | 00525   | 00623   | 00625   |
| C00550  | MLC       |         |         |         |         |         |         |
| C02070  | MLCX      |         |         |         |         |         |         |
| P00724  | I         | 00241   | 00242   | 00250   | 00301   | 00342   | 00556   |
| C00107  | IBCTYC    |         |         |         |         | 00503   | 00556   |
| C00037  | IBDESC    |         |         |         |         | 00454   | 00556   |
| C00133  | IBFLGC    |         |         |         |         |         |         |
| C00013  | IBJECC    |         |         |         |         |         |         |
| C00063  | IBTSKC    |         |         |         |         |         |         |
| P00725  | IFGUR     | 00231   | 00273   | 00604   |         |         |         |
| C00016  | IGCHI     | 00362   | 00363   |         |         |         |         |
| P00726  | IGCLC     | 00204   |         |         |         |         |         |
| C00017  | IGCLCH    | 00203   |         |         |         |         |         |
| P00727  | IGCTC.    | 00252   | 00303   |         |         |         |         |
| C05132  | INAP      |         |         |         |         |         |         |
| P00730  | ILAUN     | 00232   | 00260   | 00270   | 00274   | 00311   | 00321   |
| C00000  | ILAUNDEC  | 00567   | 00571   | 00647   |         | 00435   | 00520   |
| P00631  | IN00004.  | 00261   | 00262   | 00275   | 00276   | 00312   | 00322   |
| P00632  | IN00006.  | 00522   |         |         |         | 00313   | 00323   |
| P00633  | IN00007.  | 00266   | 00515   | 00533   | 00543   | 00642   | 00653   |
| P00634  | IN00008.  | 00545   | 00643   | 00653   |         |         |         |
| P00635  | IN00009.  | 00611   | 00674   | 00703   |         |         |         |
| P00706  | INITIAL.  | 00613   | 00664   | 00704   |         |         |         |
| C00003  | INSECTOR  | 00177   |         |         |         |         |         |



5.4TS DECOYADD

PAGE NO.

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ED

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00461

00462

00517

C00000 IOUTGLD  
P00731 1574  
C02506 1WHX  
P00240 .10  
P00311 .11  
P00355 .100  
P00203 .101  
P00311 .11  
P00236 .150  
P00321 .2  
P00604 .200  
P00331 .21  
P00561 .300  
P00337 .4  
P00342 .40  
P00627 .400  
P00625 .401  
P00401 .410  
P00426 .41  
P00410 .411  
P00356 .42  
P00420 .43  
P00354 .44  
P00350 .45  
P00432 .46  
P00371 .47  
P00374 .48  
P00365 .49  
P00226 .500  
P00454 .5  
P00463 .51  
P00476 .52  
P00503 .53  
P00506 .54  
P00520 .55  
P00526 .56  
P00540 .600  
P00552 .601  
P00550 .602  
P00250 .610  
P00301 .611  
P00260 .612  
P00274 .614  
P00265 .615  
P00616 .620  
P00620 .621  
P00606 .622  
P00573 .630  
P00602 .631  
P00630 .999  
P00161 .632  
C05334 JAPTYPE  
C00011 JFCINC  
C05252 JMAP

00446 00506 00700

00304 00310 00320

00264 00300 00336

00202 00320 00341

00603 00320 00453

00305 00320 00461

00237 00237 00560

00237 00560 00560

00306 00340 00340

00624 00624 00624

00370 00370 00370

00355 00355 00355

00364 00364 00364

00373 00400 00400

00417 00425 00425

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00255 00255 00255

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**08VACJ3G S14E**

**PAGE NO. 8**

03

Q

11/24/71

[illegible][illegible]

2454

5.4TS DEC0YADD

PAGE NO. 9

ED 0

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X00001 Q1Q10100 00466  
X00003 Q80DICT. 00000  
X00005 REORDER 00211  
C00-01 RH 00220 00465  
C00000 RL 00221  
C00007 SPDHIC 00574  
C00010 SPDLOC 00577  
X00006 STH. 00324  
X00002 TMEND. 00241  
C00132 TIMELAUN 00405  
P00562 TS00002. 00245  
P00414 TS00003. 00233  
C01034 TZN 00542  
C02354 TZNX 00272  
C00702 TZT 00447  
C02222 TZTX 00230  
P00636 UP00002. 00563  
P00946 UP00003. 00413  
P00656 UP00005. 00627  
P00667 UP00006. 00261  
P00677 UP00007. 00261  
P00226 W500001. 00261  
P00242 W500002. 00261  
P00410 W500003. 00261  
P00623 W500004. 00261  
00261 SYMBOLS

00175  
00220 00514  
00221  
00325  
00360 00570 00610 00670 00700 00563

00265 00514  
00265 00532  
00440  
00440  
00376 00447 00610 00657 00671 00701

00265 00532  
00265 00532  
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00510 00651 00650 00660 00672 00702

00327 00532  
00327 00532  
00523  
00523  
00637 00651 00650 00661 00674 00705

00327 00524  
00327 00524  
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00640 00653 00654 00665 00675 00705

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00641 00644 00654 00665 00675 00705

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SUBROUTINE DISTIME
  CSUBR   DISTIME  40ECT0 *****
  C       CONVERTS DISTANCE TO TIME *****
  CUSE    ASMTABLE 16FEB71 *****
  COMMON /ASMTABLE/ IHDASH(20),RANGEASH(20),RELASH(20),
  *          CEPASH(20),SPEEDASH(20)
  C       DIMENSION = MAXNUM ASM TYPES
  CEND    ASMTABLE *****
  CUSE    CINDATA  20ECT0 *****
  COMMON/DINDATA/HOT(90),KPL(90),JTP(90),HLA(90),MLC(90),TZT(90),
  ITZN(90),PA(90),MHT,NPL
  CEND    DINDATA *****
  CUSE    DINDATA2 20ECT0 *****
  COMMON/DINDATA2/CRT(90),IMH(90)
  CEND    DINDATA2 *****
  CUSE    EVENTS  20ECT0 *****
  COMMON/EVENTS/LAUNCH,LAUNCHREFUEL,INSCTOR,LOCATTR,LAUNASH
  *LAUNDCCT,LANONG, LOMI,MISSATTR,LEGDD,LABORT,LENTREF,LEAVEREF
  *LGCHI,IGCLM
  CEND    EVENTS *****
  CUSE    IOUTOLD 16FEB71 *****
  COMMON/IOUTOLD/IOUTOLD,KCKO,MYGROUPO,MYCRRCL,PAYLOAD,PLREF,LDPEN
  1 *SPONIG,SPOLCG,JFCING,NHAPC,IBJECG(20),IBDESC(20),IBTSKG(20),
  2 IBCTYC(20),IBFLG(20)
  CEND    IOUTOLD *****
  CUSE    IOUTSRT 16FEB71 *****
  COMMON/IOUTSRT/IOUTSRT
  1,MYGROUPO,MYCRRCL,INDVEM,IREF,IOPEM,IPAYLOAD,LNCHBASE,ITYP
  2,BLAT,BLONG,NHAP,IBTYPE(10),CHLAT(10),GBLNG(10),BLAT(10),DLONG(10)
  3,IBJEC(10),IBDES(10),IBTSK(10),IBCTY(10),ISPLG(10),ATTROUT(10),
  4SURVCUT(10),GCLCW1,GCLCW2,GCLCW3,SPOLG,
  /OUTSRT/ IS THE INPUT RECORD FROM STRKFILE
  CEND    IOUTSRT *****
  CUSE    PAYLCAD 20ECT0 *****
  COMMON/PAYLCAD/NOBCHB1(40),IMH01(40),NOBCHB2(40),IMH02(40)
  1 *NASH(40),IASH(40),NCH(40),NDECOYS(40),NADECOYS(40),IMIRV(40)
  PAYLCAD *****
  CUSE    SPASH  20ECT0 *****
  COMMON/SPASH/SPASH
  CEND    SPASH *****
  NBS=NOBCHB1(LPAYLCAD)
  IWAR1=IMH01(LPAYLCAD)
  IWAR2=IMH02(LPAYLCAD)
  IWARA=IHDASH(KCKO)
  IFY=1
  JFY=0
  MIN=NPL*2
  IMINIM-1)=0
  C       COMPUTE ALL DISTANCES
  DC 705 I = MINIMHT
  X1 = HLA(I-1) $ Y1 = MLC(I-1)
  X2 = HLA(I) $ Y2 = MLC(I)
  HDT(I) = DISTF(X1,Y1,X2,Y2)
  705 CONTINUE
  C       ADJUST DISTANCES FOR SECTOR CROSSINGS

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FTN5.5

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I=MIN
710 IF(JTP(I).EQ.INSECTOR)711,716
711 J = I
    X1 = HLA(I-1)
    Y1 = HLC(I-1)
    DSUM = MOT(I)
712 J = J+1
    DSUM = DSUM+MOT(J)
    IF(JTP(J).EQ.INSECTOR)713,714
713 IF(J.LE.MHT)712,714
714 X2 = HLA(J) $ Y2 = HLC(J)
    OS = DISTF(X1,Y1,X2,Y2)
715 MOT(I) = MOT(I)+OS/DSUM
    I = I+1
    IF(L.GT.J)717,715
716 I = I+1
717 IF(L.GT.MHT)719,710
719 CONTINUE
    DC 820 I=MIN,MHT
    IF(IFY)850,851
850 SPUD=SPOLCO $ GC TO 852
851 SPUD=SPOLCO
852 I=M(I)+C
    CUMTIME=CMT(I-1)
    DIST=MOT(I)
    JTP=JTP(I)
    IF(JTP).EQ.LOCLATRI)812,813
812 IF(INS)815,815,816
816 NBS = NBS+1
    I=M(I)+IMARI
    GC TO 813
815 I=M(I)+IMAR2
813 IF(JFY)801,808
801 IF(JFY.EQ.LAUNASM)814,807
809 JFY=0
    C HERE AFTER ASM TARGET
    DIST=DISTF(HLAIMP,HLCIMP,HLA(I),HLC(I))
    CUMTIME = CMT(I-2)
808 IF(JTP).EQ.LAUNASM)814,807
814 I=M(I)+IMARA
    GC TO 806
807 IF(JTP).EQ.IGM(L).OR.(JTP).EQ.IGC(LW))804,810
805 JFY=2
    C HERE FOR ASM TARGET
    MOT(I)=DELTIME=DIST/SPASH
    GC TO 820
806 JFY=1 $ HLAIMP=HLA(I) $ HLCIMP=HLC(I)
    C HERE FOR ASM LAUNCH
    GC TO 610
    C FLIP IFY
804 IFY=1-IFY
810 MOT(I)=DELTIME=DIST/SPUD
820 CMT(I)=CUMTIME+DELTIME
    END

```

2457

5.4TS DISTIME

PROGRAM LENGTH  
ENTRY PCINTS  
BLOCK NAMES

DISTIME

ASMTABLE  
DINDATA  
DINDATA2  
EVENTS  
ICUTOLD  
OUTSMT  
PAYLOAD  
SPASH

EXTERNAL SYMBOLS

QUADICT.  
DIS:P

DISTIME

IDENT

U0310  
U0003  
U0144  
U1322  
U0264  
U0020  
U0157  
U0221  
U0620  
U0001

5.4TS DISTIME

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|        |         |
|--------|---------|
| C00160 | ATTROUT |
| C00217 | AVAILCM |
| C00255 | BEGIN.  |
| C00611 | BLAT    |
| C00912 | BLONG   |
| C00074 | CEPASH  |
| C00000 | CHT     |
| P00261 | CUNTI.  |
| P00262 | CUNTINE |
| C00213 | DELAY   |
| P00263 | DELTIME |
| P00001 | DICT.   |
| P00264 | DIST    |
| X00002 | DISTF   |
| P00003 | DISTIME |
| C00052 | DLAT    |
| C00064 | DLONG   |
| P00265 | DS      |
| P00266 | DSJM    |
| P00257 | EADING. |
| P00000 | EXIT.   |
| C00204 | GLOM1   |
| C00205 | GLOM2   |
| C00206 | GLOM3   |
| C00000 | HOT     |
| C00016 | MCA     |
| P00267 | MLATHP  |
| C00550 | MLC     |
| P00270 | MLTMP   |
| P00271 | I       |
| C00310 | IASM    |
| C00134 | IBCTY   |
| C00107 | IBCTYC  |
| C00110 | IBDES   |
| C00037 | IDESC   |
| C00146 | IFLGL   |
| C00133 | IFPLGC  |
| C00076 | IRECC   |
| C00013 | IRJEC   |
| C00122 | IRFSK   |
| C00063 | IRTSK   |
| C00014 | ISYPE   |
| C00216 | IDGMBER |
| C00005 | IDOPEN  |
| P00224 | IFOOCL. |
| P00272 | IPY     |
| C00016 | IGMI    |
| C00017 | IGLOW   |
| C00215 | IGLAT   |
| C00550 | IMRY    |

00256

UQ252

00142  
00251

00211  
00141  
00250

00210  
00034  
00212

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00154

INT. DAYTIME

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3.415

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|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| C00003 | INDVEN   |       |       |       |       |       |       |       |       |
| P00255 | INITIAL  |       |       |       |       |       |       |       |       |
| C00003 | INSECTCM | 00006 |       |       |       |       |       |       |       |
| C00000 | ICUYCLD  | 00057 |       |       |       |       |       |       |       |
| C00000 | ICUTSRT  |       | 00077 | 00077 |       |       |       |       |       |
| C00006 | IPAYLCAD |       |       |       |       |       |       |       |       |
| C00004 | IREF     |       |       |       |       |       |       |       |       |
| C00214 | IR4      |       |       |       |       |       |       |       |       |
| C00010 | ITYP     |       |       |       |       |       |       |       |       |
| P00273 | IWARI    | 00013 |       |       |       |       |       |       |       |
| P00274 | IWAR2    | 00015 |       |       |       |       |       |       |       |
| P00175 | IWARA    | 00020 |       |       |       |       |       |       |       |
| C00132 | IWH      | 00026 |       |       |       |       |       |       |       |
| C00050 | IWHDI    | 00012 |       |       |       |       |       |       |       |
| C00170 | IWHDI2   | 00014 |       |       |       |       |       |       |       |
| C00000 | IWHDSH   | 00017 |       |       |       |       |       |       |       |
| P00052 | .705     |       | 00152 | 00153 | 00167 | 00170 | 00172 | 00172 | 00217 |
| P00055 | .710     | 00134 |       |       |       |       |       |       |       |
| P00061 | .711     | 00134 |       |       |       |       |       |       |       |
| P00071 | .712     | 00103 |       |       |       |       |       |       |       |
| P00101 | .713     | 00104 |       |       |       |       |       |       |       |
| P00105 | .714     | 00103 |       |       |       |       |       |       |       |
| P00117 | .715     | 00126 |       |       |       |       |       |       |       |
| P00130 | .716     | 00060 |       |       |       |       |       |       |       |
| P00132 | .717     | 00127 |       |       |       |       |       |       |       |
| P00135 | .719     |       |       |       |       |       |       |       |       |
| P00175 | .801     | 00174 |       |       |       |       |       |       |       |
| P00243 | .804     | 00223 |       |       |       |       |       |       |       |
| P00227 | .805     | 00177 |       |       |       |       |       |       |       |
| P00235 | .806     | 00220 |       |       |       |       |       |       |       |
| P00221 | .807     | 00215 |       |       |       |       |       |       |       |
| P00213 | .808     | 00174 |       |       |       |       |       |       |       |
| P00200 | .809     | 00176 |       |       |       |       |       |       |       |
| P00245 | .810     | 00226 |       |       |       |       |       |       |       |
| P00163 | .812     |       |       |       |       |       |       |       |       |
| P00173 | .813     | 00162 |       |       |       |       |       |       |       |
| P00216 | .814     |       |       |       |       |       |       |       |       |
| P00171 | .815     | 00164 |       |       |       |       |       |       |       |
| P00165 | .816     |       |       |       |       |       |       |       |       |
| P00250 | .820     | 00234 |       |       |       |       |       |       |       |
| P00145 | .850     | 00144 |       |       |       |       |       |       |       |
| P00150 | .851     | 00144 |       |       |       |       |       |       |       |
| P00152 | .852     | 00147 |       |       |       |       |       |       |       |
| P00206 | .Z00001. | 00202 |       |       |       |       |       |       |       |
| P00276 | J        | 00092 |       |       |       |       |       |       |       |
| C00011 | JFCTNG   |       | 00072 | 00073 | 00101 | 00105 | 00126 |       |       |
| P00277 | JFY      | 00022 |       |       |       |       |       |       |       |
| C00264 | JTP      | 00056 | 00175 | 00201 | 00230 | 00236 |       |       |       |
| P00300 | JTP1     | 00076 | 00076 | 00075 | 00157 | 00157 |       |       |       |
| C00001 | KCKG     | 00013 | 00221 | 00224 |       |       |       |       |       |
| C00132 | KPL      | 00016 |       |       |       |       |       |       |       |
| C00013 | LABORT   |       |       |       |       |       |       |       |       |
| C00007 | LANDHC   |       |       |       |       |       |       |       |       |
| C00005 | LAUNASH  | 00214 |       |       |       |       |       |       |       |



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|                  |       |       |       |       |       |       |  |
|------------------|-------|-------|-------|-------|-------|-------|--|
| C00001 LAUNB     |       |       |       |       |       |       |  |
| C00006 LAUNDCOY  |       |       |       |       |       |       |  |
| C00000 LAUNH     |       |       |       |       |       |       |  |
| C00006 LOPEN     |       |       |       |       |       |       |  |
| C00015 LEAVEREF  |       |       |       |       |       |       |  |
| C00012 LEGDOG    |       |       |       |       |       |       |  |
| C00014 LENTEREF  |       |       |       |       |       |       |  |
| C00002 LEREFUEL  |       |       |       |       |       |       |  |
| C00007 LNCMBASE  |       |       |       |       |       |       |  |
| C00004 LCLATTR   | 00161 | 00161 |       |       |       |       |  |
| C00010 LOMI      | 00007 | 00007 |       |       |       |       |  |
| C00004 LPAYLCAD  |       |       |       |       |       |       |  |
| C00005 LREF      |       |       |       |       |       |       |  |
| C00120 MHT       | 00031 | 00031 | 00102 | 00133 | 00136 | 00137 |  |
| P00301 MIN       | 00025 | 00026 | 00030 | 00053 | 00140 |       |  |
| C00011 MISSATTR  |       |       |       |       |       |       |  |
| C00002 MYCORR    |       |       |       |       |       |       |  |
| C00003 MYCORRO   |       |       |       |       |       |       |  |
| C00001 MYGROUP   |       |       |       |       |       |       |  |
| C00002 MYGROUPO  |       |       |       |       |       |       |  |
| C00500 NADECCYS  |       |       |       |       |       |       |  |
| C00240 NASM      |       |       |       |       |       |       |  |
| P00302 NBS       | 00011 | 00163 | 00165 |       | 00166 |       |  |
| C00360 NOM       |       |       |       |       |       |       |  |
| C00030 NDECCYS   |       |       |       |       |       |       |  |
| C00013 NHAP      |       |       |       |       |       |       |  |
| C00012 NHAPC     |       |       |       |       |       |       |  |
| C00000 N8CMB1    | 00010 | 00010 |       |       |       |       |  |
| C00120 N8CMB2    |       |       |       |       |       |       |  |
| C01321 NPL       | 00023 | 00023 |       |       |       |       |  |
| C00026 CBLAT     |       |       |       |       |       |       |  |
| C00040 CBLONG    |       |       |       |       |       |       |  |
| C01166 PA        | 00000 | 00004 |       |       |       |       |  |
| X00001 Q80DICT.  |       |       |       |       |       |       |  |
| C00211 RANGE     |       |       |       |       |       |       |  |
| C00024 RANGEASM  |       |       |       |       |       |       |  |
| C00212 RANGREF   |       |       |       |       |       |       |  |
| C00050 RELASH    |       |       |       |       |       |       |  |
| C00020 RNDDEC    | 00231 | 00231 |       |       |       |       |  |
| C00000 SPASH     |       |       |       |       |       |       |  |
| C00210 SPOHI     | 00145 | 00145 |       |       |       |       |  |
| C00007 SPDHIC    |       |       |       |       |       |       |  |
| C00207 SPOLC     | 00150 | 00150 |       |       |       |       |  |
| C00010 SPOLC     |       |       |       |       |       |       |  |
| C00120 SPEEDASH  |       |       |       |       |       |       |  |
| P00303 SPUO      | 00146 | 00151 | 00246 |       |       |       |  |
| C00172 SURVOUT   |       |       |       |       |       |       |  |
| P00053 T500001.  | 00033 |       |       |       |       |       |  |
| P000254 T500002. | 00140 |       |       |       |       |       |  |
| C01034 TZN       |       |       |       |       |       |       |  |
| C00702 TZT       |       |       |       |       |       |       |  |
| P00035 W500001.  | 00052 |       |       |       |       |       |  |
| P00143 W500002.  | 00253 |       |       |       |       |       |  |
| P00304 X1        | 00036 | 00047 | 00064 | 00114 |       |       |  |

5:47S DISTIME

P00305 X2  
P00306 Y1  
P00307 Y2  
00241 SYMBOLS

00042  
00040  
00044

00050  
00047  
00050

00107  
00066  
00111

00115  
00114  
00115

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80000

YI=BP LONG(I)
C=DIFF LONG(YI,Y)
YL=YI
XL=BP LAT(I)
THET=0.0
XDIFL=XL-X
YDIFL=C
DISTL=XDIFL*XDIFL+YDIFL*YDIFL
LINK=I
ICURZONE=BPZONE(I)
CLO ZONE=COMPUT NEXT ANGLE
I=LINK
LINK=BP LINK(I)
XN=BP LAT(LINK)
YN=BP LONG(LINK)
YDIFN=C-DIFF LONG(YI,YN)
XDIFN=XN-X
DISTN=XDIFN*XDIFN+YDIFN*YDIFN
SS=DIS TL*DIS IN
IF(SS)>6.67
SS=SQR(TF(SS))
D=(DISTL*DISTN-(XN-XL)**2-DIFF LONG(YN,YL)**2)/(2.0*SS)
PRINT 22,D
IF(D)>6.6+20
IF(D)<=-1 THE POINT IS ON A BOUNDARY, IF >1 ON THE BOUNDARY EXTENDED
C
D=0/ABS F(D)
T=ACCS F(D)
SIGN=1.0
IF(XDIFN*YDIFL-XDIFL*YDIFN)>1.02
SIGN=-1.0
THET=THET+T*SIGN
XL=XN
YL=YN
XDIFL=XDIFN
YDIFL=YDIFN
DISTL=DISTN
IF(LINK=IFIRST(105,210,105
210 IF(ABS F(THET)-3.0)>136.6+6
152 CONTINUE
RETURN
IF FOUND ZN=ICURZONE
RETURN
END
6

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SATS FINDZONE

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

FINDZONE

FINDZONE  
MASTER

9

ITAB

EXTERNAL SYMBOLS

THEND.  
QUADICT.  
ORDER  
REORDER  
DIFFLONG  
SURTF  
ACCSF  
STM.  
ONSINGL.

IDENT

U1141

U0635

U0003

U0027

U7304

U0001

FINDZONE

5-ITS FINDZONE

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|                  |       |       |       |       |       |                                     |
|------------------|-------|-------|-------|-------|-------|-------------------------------------|
| X0007 ACQSF      | 01036 |       |       |       |       |                                     |
| P01076 BEGIN     | 01077 |       |       |       |       |                                     |
| C03434 BPLAT     | 00656 |       |       |       |       |                                     |
| C03124 BPLINK    | 00660 |       |       |       |       |                                     |
| C03744 BPLONG    | 00657 | 00721 | 00747 | 00747 | 00747 |                                     |
| C04254 BPZONE    | 00651 | 00657 | 00705 | 00742 | 00743 |                                     |
| P01111 C         | 00726 | 00735 | 00761 |       |       |                                     |
| C02772 CMTX      |       |       |       |       |       |                                     |
| P01075 CNVRT1    | 01024 |       |       |       |       |                                     |
| P01112 COUNT1    | 00672 |       |       |       |       |                                     |
| P00624 CRFMT1    | 01027 |       |       |       |       |                                     |
| P01113 D         | 01013 | 01023 | 01032 | 01033 | 01035 |                                     |
| P00001 DICT      | 00637 | 00654 | 00663 | 00757 | 00775 | 01021 01026 01037                   |
| X00005 DIFFELONG | 00723 | 00756 | 01003 |       |       |                                     |
| P01114 DISTL     | 00741 | 00770 | 01001 | 01057 |       |                                     |
| P01115 DISTN     | 00767 |       | 01056 |       |       |                                     |
| C00264 DISTORE   |       |       |       |       |       |                                     |
| P01100 ENDING    | 00640 | 01073 | 01076 | 01077 |       |                                     |
| P00000 EXIT      | 01101 |       |       |       |       |                                     |
| C00000 FINDLAT   |       |       |       |       |       |                                     |
| C00001 FINDLON   |       |       |       |       |       |                                     |
| P00635 FINDZONE  | 00635 |       |       |       |       |                                     |
| P00624 FORMAT    | 01017 |       |       |       |       |                                     |
| P01027 G600000   |       |       |       |       |       |                                     |
| C06712 HAPDIST   |       |       |       |       |       |                                     |
| C05726 HAPLAT    |       |       |       |       |       |                                     |
| C06320 HAPLONG   |       |       |       |       |       |                                     |
| C01320 HDTX      |       |       |       |       |       |                                     |
| C01736 HLAX      |       |       |       |       |       |                                     |
| C02070 HLCX      |       |       |       |       |       |                                     |
| P01116 I         |       |       |       |       |       |                                     |
| P00623 IBEGIN    | 00702 | 00703 | 00704 | 00705 | 00710 | 00711 00712 00713 00714 00720 00741 |
| P01117 ICURZONE  | 00746 | 00746 |       |       |       |                                     |
| C00001 IDENTAC   | 00641 | 00645 |       |       |       |                                     |
| C00002 IFOUNDN   | 00744 | 01071 |       |       |       |                                     |
| P01120 IFRST     | 01067 | 01070 | 01072 | 01072 |       |                                     |
| C05132 IMAP      | 00714 | 01061 |       |       |       |                                     |
| C00000 IMDATE    |       |       |       |       |       |                                     |
| C00000 ILAUNDEC  | 00640 |       |       |       |       |                                     |
| P01076 INITIAL   |       |       |       |       |       |                                     |
| C00002 ISIDE     | 00646 | 00646 |       |       |       |                                     |
| C00000 ITAB      | 01044 | 01045 |       |       |       |                                     |
| C02506 IMHX      | 01062 | 01062 |       |       |       |                                     |
| P01046 .1        | 01066 |       |       |       |       |                                     |
| P00745 .105      |       |       |       |       |       |                                     |
| P00712 .136      |       |       |       |       |       |                                     |
| P01060 .150      |       |       |       |       |       |                                     |
| P01067 .152      | 00716 | 00717 |       |       |       |                                     |
| P00703 .200      | 00706 | 00707 |       |       |       |                                     |
| P01035 .20       | 01016 |       |       |       |       |                                     |
| P01050 .2        | 01045 |       |       |       |       |                                     |
| P00710 .201      |       |       |       |       |       |                                     |
| P01017 .21       |       |       |       |       |       |                                     |

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|        |           |       |       |       |       |       |
|--------|-----------|-------|-------|-------|-------|-------|
| P01063 | -210      | 01061 |       |       |       |       |
| P00720 | -220      | 00716 |       |       |       |       |
| P01033 | -22       | 01015 |       |       |       |       |
| P00644 | -300      | 00642 |       |       |       |       |
| P00701 | -301      | 00643 |       |       |       |       |
| P00700 | -302      |       |       |       |       |       |
| P01071 | -6        | 00771 | 01034 | 01065 | 01066 |       |
| P00773 | -7        |       |       |       |       |       |
| P01102 | -ERASER.  | 00737 | 00767 | 00777 | 01000 | 01007 |
|        |           | 01011 | 01031 | 01032 | 01042 | 01010 |
|        |           | 01022 |       |       |       |       |
| P00624 | -22       |       |       |       |       |       |
| C05334 | JAPTYPE   |       |       |       |       |       |
| C05252 | JHAP      |       |       |       |       |       |
| C01604 | JTPX      |       |       |       |       |       |
| P01121 | K         | 00675 | 00676 |       |       |       |
| C05074 | KCOUNT    |       |       |       |       |       |
| C01452 | KPLX      |       |       |       |       |       |
| P01122 | LINK      |       |       |       |       |       |
| C05170 | KOUNT     | 00742 | 00745 | 00750 | 00751 | 01060 |
| P01123 | N         | 00667 | 00672 |       |       |       |
| C00023 | NALENT    |       |       |       |       |       |
| C00016 | NASMTYPE  |       |       |       |       |       |
| C00010 | NANDRY    | 00652 | 00655 | 00665 | 00667 | 00715 |
| C00026 | NCLASS    |       |       |       |       |       |
| C00021 | NCOMPLEX  |       |       |       |       |       |
| C00004 | NCON      |       |       |       |       |       |
| C00025 | NCONTYPE  |       |       |       |       |       |
| C00005 | NOPEN     |       |       |       |       |       |
| P00003 | NDX       | 00651 | 00655 | 00664 |       |       |
| P00313 | NDXR      | 00664 | 00676 |       |       |       |
| C04504 | NEXTZONE  | 00660 |       |       |       |       |
| C00013 | NGROUP    |       |       |       |       |       |
| C00015 | NPAYLOAD  |       |       |       |       |       |
| C00006 | NRECOVER  |       |       |       |       |       |
| C00007 | NREF      |       |       |       |       |       |
| C00011 | NREG      |       |       |       |       |       |
| C00003 | NRTT      |       |       |       |       |       |
| C00020 | NTANKBAS  |       |       |       |       |       |
| C00024 | NTGTS     |       |       |       |       |       |
| C00014 | NTGTBASE  |       |       |       |       |       |
| C00012 | NTYPE     |       |       |       |       |       |
| C00017 | NWMTYPE   |       |       |       |       |       |
| X00003 | ORDER     | 00647 | 00662 |       |       |       |
| C02640 | PAX       |       |       |       |       |       |
| X00002 | ORDDICT.  | 00000 | 00036 |       |       |       |
| X00011 | UNSLINGL. | 01074 |       |       |       |       |
| X00004 | REORDER   | 00653 |       |       |       |       |
| P01124 | SIGN      | 01041 | 01051 |       |       |       |
| X00006 | SKRTF     | 00774 |       |       |       |       |
| P01125 | SS        | 00771 | 00773 | 00776 | 01011 |       |
| X00010 | STH.      | 01020 |       |       |       |       |
| P01126 | T         | 01043 |       |       |       |       |
| X00001 | TMENU.    | 01025 |       |       |       |       |

5.4TS FINUZONE

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P01127 THET  
C00132 TIMELAUN  
P00701 TS000CL.  
C02354 TZNX  
C02222 TZTX  
P00574 WS000CL.  
C00000 X  
P01130 KDIFL  
P01131 XDIFN  
P01132 AL  
P01133 XN  
C00001 Y  
P01134 YDIFL  
P01135 YDIFN  
P01136 YI  
P01137 YL  
P01140 YN  
00173 SYMBCLLS

00732 01051 01052 01063  
00671  
00700  
00733 00733 00763 00763  
00734 00736 00736 01043  
00764 00765 01041 01054  
00731 00732 00777 01053  
00753 00762 00776 01052  
00725 00737 00740 01042  
00735 00766 00766 01043  
00762 00725 00726 00760  
00727 01005 01054  
00755 00760 01005 01053

01055

01056  
01055



FTn5.5

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SUERGUINE FLYPOINT
CSUBR FLYPOINT ZDEC70 *****
C FLYPOINT HAS 3 ENTRIES, IS AN INTEGRAL *****
C PART OF BLOCK 40 *****
CUSE ASMARAY ZDEC70 *****
COMMON/ASMARAY/ALAT(20),ALON(10),IFLY(10),IDIS(10),ICRD(10),
1JAY,DIST *****
CEND ASMARAY *****
CUSE LASM ZDEC70 *****
COMMON/LASM/U1,V1,U2,V2,UAT,VAT,RASK,RLAT,RLONG *****
LASM *****
CEND GUTSRT 10FEB71 *****
CUSE COMMON/GUTSRT/ICUTSRT *****
1,MYGRUP,MYCRR,INDVEN,IREF,IOPEN,IPAYLOAD,INCHBASE,IITYP *****
2,RLAT,RLONG,WHAP,IBTYPE(10),GBLAT(10),GBLONG(10),OLAT(10),DLONG(10) *****
3,IBJEC(10),IBUES(10),IBTSK(10),IBCTY(10),IBFLG(10),AIRGUT(10), *****
4,SURVCUT(10),GLOMI,GLOCM2,GLOCM3,SPULO, *****
4SPDNI,RANGE,RANGERE,VELAY,ING,ILRT,IOSCMBER,AVAILON,MNGDEC *****
C /GUTSRT/ IS THE INPUT RECORD FROM STKFILE *****
CEND GUTSRT *****
ENTRY PREFLY1
7 IF (IFLY(JAY).EQ.1).AND. (IBTYPE(JAY).NE.0H AIM ASM)13*8
8 JAY=JAY-1
GC TO 7
ENTRY PREFLY2
1 IF (IFLY(JAY).EQ.1)3*2
2 JAY=JAY-1
GC TO 1
3 U1=ALAT(JAY)
V1=ALON(JAY)
DIST=DISF(U1,V1,UAT,VAT)
RETURN
ENTRY POSTFLY
4 IF (IFLY(JAY).EQ.1)6*5
5 JAY=JAY+1
GC TO 4
6 U2=ALAT(JAY)
V2=ALON(JAY)
CALL LAUNCH
RETURN
END
1000
74000
2000
3000
4000
1000
2000
4000
5000
1000
5000
6000
1000
2000
3000
4000
4500
5000
7000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
22000
23000
24000
25000
26000
27000

```

IDENT FLYPOINT

00100  
 00004  
 00054  
 00011  
 00027  
 00064  
 00011  
 00221

FLYPOINT  
 POSTFLY  
 PREFLY1  
 PREFLY2

ASMAHAY  
 LASH  
 OUTSRT

QUUDICT.  
 QISTF  
 LAUNCH

PROGRAM LENGTH  
ENTRY POINTS

BLOCK NAMES

EXTERNAL SYMBOLS

## 5.475 FLYPCINT

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|        |          |       |       |       |       |       |       |       |       |
|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| CU0000 | ALAT     | 00042 | 00067 | 00070 | 00071 |       |       |       |       |
| CU0012 | ALON     | 00043 | 00044 |       |       |       |       |       |       |
| CU0160 | ATTROUT  |       |       |       |       |       |       |       |       |
| CU0217 | AVAIL2M  |       |       |       |       |       |       |       |       |
| PU0076 | BEGIN.   | 00076 |       |       |       |       |       |       |       |
| CU0011 | BLAT     |       |       |       |       |       |       |       |       |
| CU0012 | BLONG    |       |       |       |       |       |       |       |       |
| CU0213 | DELAY    |       |       |       |       |       |       |       |       |
| PU0001 | DICT.    | 00006 | 00013 | 00031 | 00047 | 00056 | 00074 |       |       |
| CU0063 | DIST     | 00052 | 00052 |       |       |       |       |       |       |
| X00002 | DISTF    | 00046 |       |       |       |       |       |       |       |
| CU0052 | DLAT     |       |       |       |       |       |       |       |       |
| CU0064 | DLONG    |       |       |       |       |       |       |       |       |
| PU0077 | ENDING.  | 00007 | 00014 | 00032 | 00053 | 00057 | 00075 |       |       |
| PU0000 | EXIT.    | 00077 |       |       |       |       |       |       |       |
| PU0004 | FLYPCINT | 00004 |       |       |       |       |       |       |       |
| PU0003 | FORMAT.  | 00015 |       |       |       |       |       |       |       |
| CU0204 | GLOW1    |       |       |       |       |       |       |       |       |
| CU0205 | GLOW2    |       |       |       |       |       |       |       |       |
| CU0206 | GLOW3    |       |       |       |       |       |       |       |       |
| CU0134 | ISCTY    |       |       |       |       |       |       |       |       |
| CU0110 | ISDES    |       |       |       |       |       |       |       |       |
| CU0146 | ISFLG    |       |       |       |       |       |       |       |       |
| CU0076 | ISJEC    |       |       |       |       |       |       |       |       |
| CU0122 | ISTSK    |       |       |       |       |       |       |       |       |
| CU0014 | ISTYPE   | 00021 | 00021 |       |       |       |       |       |       |
| CU0216 | ISCHMBER |       |       |       |       |       |       |       |       |
| CU0036 | IDIS     |       |       |       |       |       |       |       |       |
| CU0005 | IDPEX    |       |       |       |       |       |       |       |       |
| PU0020 | IF00001. |       |       |       |       |       |       |       |       |
| CU0024 | IFLY     | 00016 | 00034 | 00061 |       |       |       |       |       |
| CU0215 | ILRT     |       |       |       |       |       |       |       |       |
| CU0003 | INDVEN   |       |       |       |       |       |       |       |       |
| PU0076 | INITIAL. | 00007 | 00014 | 00032 | 00057 |       |       |       |       |
| CU0050 | ICOR     |       |       |       |       |       |       |       |       |
| CU0000 | ICUTSRT  |       |       |       |       |       |       |       |       |
| CU0006 | IPAYLOAD |       |       |       |       |       |       |       |       |
| CU0004 | IREF     |       |       |       |       |       |       |       |       |
| CU0214 | IRG      |       |       |       |       |       |       |       |       |
| CU0010 | IITYP    |       |       |       |       |       |       |       |       |
| PU0033 | .1       | 00040 |       |       |       |       |       |       |       |
| PU0036 | .2       | 00035 |       |       |       |       |       |       |       |
| PU0041 | .3       | 00023 | 00035 |       |       |       |       |       |       |
| PU0060 | .4       | 00065 |       |       |       |       |       |       |       |
| PU0063 | .5       | 00062 |       |       |       |       |       |       |       |
| PU0066 | .6       | 00062 |       |       |       |       |       |       |       |
| PU0015 | .7       | 00026 |       |       |       |       |       |       |       |
| PU0024 | .8       | 00017 |       |       |       |       |       |       |       |
| PU0003 | ..100000 | 00022 | 00015 | 00020 | 00024 | 00024 | 00025 | 00033 | 00036 |
| CU0062 | JAY      | 00015 | 00041 | 00060 | 00063 | 00063 | 00063 | 00066 | 00066 |
| X00003 | LAUNCH   | 00037 |       |       |       |       |       |       |       |
| CU0007 | LNCBASE  | 00073 |       |       |       |       |       |       |       |
| CU0002 | MYCORR   |       |       |       |       |       |       |       |       |

# 5.3TS FLYPOINT

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CO0001 MYGROUP  
 CO0013 NMAP  
 CO0026 CBLAT  
 CO0040 RBLONG  
 PO0054 POSTFLY  
 PO0011 PREFLY1  
 PO0027 PREFLY2  
 MO0001 ORGODICT.  
 CO0211 RANGE  
 CO0212 RANGERE  
 CO0006 RASH  
 CO0007 RLAT  
 CO0010 RBLONG  
 CO0220 RRGDEC  
 CO0210 SPDHI  
 CO0207 SPOLC  
 CO0172 SURVCUT  
 CO0000 U1  
 CO0002 U2  
 CO0004 DAT  
 CO0001 V1  
 CO0003 V2  
 CO0005 VAT  
 CO0114 SYMBOLS

00054  
 00011  
 00027  
 00006  
 00005  
 00012  
 00030  
 00055  
 00042  
 00087  
 00051  
 00044  
 00071  
 00051  
 00043  
 00070  
 00045  
 00072  
 00050  
 00050

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```

SUBROUTINE INITANK
  CSUBR  INITANK  25MAY71
  CUSE   7      20MAY71
  COMMON /7/  IINDXTR(60),IKMLAT(60),IKMLONG(60),IREFTR(60),
  *           NIKPSUN(60),NALMTNK(60),TANKSPC(60),IKGLYALT(60),
  *           IKULYNL(60),IKTICS(60),IITYPTK(60),IRANGE(60)
  CEND
  CUSE   7      20MAY71
  KEYLENG  2DECTO
  COMMON /KEYLENG/  LQS, LJM, LDM, LNK, LMS, LMG, LDBL
  CEND
  CUSE   KEYLENG
  REF      2DECTO
  COMMON/REF/NFLAT(50),MFLONG(50)
  CEND
  CUSE   REF
  IRF      2DECTO
  COMMON/IRF/IRNF
  CEND
  CUSE   IRF
  MASTER  10FEB71
  COMMON/MASTER/IMDATE, IDENING, ISIDE, NRTPT, NCORR, NOPEN, NRECOVER
  1.NREF, NNDURY, NNEG, NTYPE, NGRGUP, NTGTBASE, NPYLGAU, NASHIYPE, NMDTYPE
  2.NANKBBS, NCOMPLEX, NCLASS, NALERT, NIGTS, NCORRYPE, NCNTRY
  CEND
  CUSE   MASTER
  FILES    10FEB71
  COMMON /FILES/  TOTFILE(12), BASFILE(2), MSLTINE(2), ALCCJAR(2),
  *              1.PALSC(2), ALCCOMP(2), STKFL(2), SEVENTAPE, PLANTAPE
  C
  TYPE INTEGER TOTFILE,BASFILE,ALCCJAR,1.PALSC,ALCCGRP,STKFL
  TYPE INTEGER SEVENTAPE,PLANTAPE
  FILES
  TANKER  2DECTO
  COMMON/TANKER/INDEXTK,IKLAT,IKLONG,IREFTR,NPSQNTK
  1.NALNTR,SPEEDTK,ULYALTK,DLNLT,TKTOS,IITYPTK,TANKHNGE
  CEND
  CUSE   TANKER
  VAM      10FEB71
  COMMON/  S/COS(60,50),SOURCE(60),ISOL(110),RBASLCC(110),
  *        CBASLCC(110),NSDOL,NMAX,CMAK,IRCHK(60),IRCDIF,DIRSTREF(50)
  *        FILLR(30*)
  TYPE LOGICAL IRCHK
  TYPE INTEGER CUST,SOURCE,RBASLCC,CBASLCC,NMAX,CMAK
  TYPE INTEGER CUST,CMAK LENGTH OF BLOCK VAM CORRESPOND TO 9A2S
  C
  CUSE   VAM
  IF (INTANKBAS) 100009
  9 RETURN
  1000 PRINT 2
  2 FORMAT(1H1)
  DC 1200 ITRK,INTANKBAS
  ITPBASFILE(1)
  CALL ROAMHAT(INDEXTK,IK)
  IINDXTR(IITK)=INDEXTK
  IKLAT(IITK)=IKLAT
  IKLONG(IITK)=IKLONG
  IREFTR(IITK)=IREFTR
  NIKPSUN(IITK)=NPSQNTK
  NALNTR(IITK)=NALNTRK
  TANKSPC(IITK)=CPEEDTK
  IKULYALT(IITK)=ULYALTK
  IKULYNL(IITK)=DLNLT,IK

```

FT05.5

TKTTOS(IJK)=ITOS  
IITPTK(IJK)=IITPDK  
TKANGE(IJK)=TANKRNGE  
1200 CONTINUE  
RETURN  
END

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21500  
21600  
21700  
22000  
24000  
25000

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ED

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SATS INITANK

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

INITANK

IDENT

INITANK

00074  
00007

7

KEYLENG

REF

INF

MASTER

FILES

TANKER

9

01320

00010

00144

00002

00027

00020

00014

07246

EXTERNAL SYMBOLS

THEND.

QUODICT.

ROADWAY

SIN.

S-4TS INITANK

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|                 |  |  |  |  |
|-----------------|--|--|--|--|
| C00012 ALOCGRP  |  |  |  |  |
| C00006 ALOCSTAR |  |  |  |  |
| C00002 BASFILE  |  |  |  |  |
| P00070 BEGIN.   |  |  |  |  |
| C06320 CBASLCC  |  |  |  |  |
| C06500 CMAX     |  |  |  |  |
| C00300 COST     |  |  |  |  |
| P00303 CRFMT.   |  |  |  |  |
| P00001 OICF.    |  |  |  |  |
| C06504 DISTREF  |  |  |  |  |
| C00007 DLYALTK  |  |  |  |  |
| C00010 DLYNLTK  |  |  |  |  |
| P00071 ENDING.  |  |  |  |  |
| C00016 EVENTAPE |  |  |  |  |
| P00000 EXIT.    |  |  |  |  |
| C06566 FILL     |  |  |  |  |
| P00003 FORMAT.  |  |  |  |  |
| P00024 G600000. |  |  |  |  |
| C00001 IDENTING |  |  |  |  |
| C00000 IMDATE   |  |  |  |  |
| C00000 IINDXTK  |  |  |  |  |
| C00264 IIREFTK  |  |  |  |  |
| C01130 IITYPTK  |  |  |  |  |
| C00000 IND'XTK  |  |  |  |  |
| P00007 INITANK  |  |  |  |  |
| P00070 INITIAL. |  |  |  |  |
| C06503 IRCDIF   |  |  |  |  |
| C06501 IRCHK    |  |  |  |  |
| C00003 IREFIK   |  |  |  |  |
| C00000 IRF      |  |  |  |  |
| C00002 ISIDE    |  |  |  |  |
| C05764 ISOL     |  |  |  |  |
| P00072 ITR      |  |  |  |  |
| P00073 ITP      |  |  |  |  |
| C00012 ITPETK   |  |  |  |  |
| P00016 .1000    |  |  |  |  |
| P00064 .1200    |  |  |  |  |
| P00015 .9       |  |  |  |  |
| P00003 .2       |  |  |  |  |
| C00007 LDBL     |  |  |  |  |
| C00002 LDN      |  |  |  |  |
| C00001 LIN      |  |  |  |  |
| C00003 LINC     |  |  |  |  |
| C00005 LMS      |  |  |  |  |
| C00006 LMO      |  |  |  |  |
| C00000 LGS      |  |  |  |  |
| C00004 LTK      |  |  |  |  |
| C00004 MSLTIME  |  |  |  |  |
| C00023 NALERT   |  |  |  |  |
| C00005 NALRTK   |  |  |  |  |
| C00054 NALRTAK  |  |  |  |  |
| C00016 NASMTYPE |  |  |  |  |
| C00010 NBNDRY   |  |  |  |  |
| C00022 NCLASS   |  |  |  |  |

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5.ATS

INITIAL

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|        |          |       |       |       |       |
|--------|----------|-------|-------|-------|-------|
| CU0026 | NCNTRY   |       |       |       |       |
| CU0021 | NCOMPLEX |       |       |       |       |
| CU0004 | NCORR    |       |       |       |       |
| CU0025 | NCORTYPE |       |       |       |       |
| CU0005 | NOPEN    |       |       |       |       |
| CU0013 | NCRSUP   |       |       |       |       |
| CU0015 | NPAYLOAD |       |       |       |       |
| CU0004 | NPSNTRK  | 00044 | 00044 |       |       |
| CU0006 | NRECOVER |       |       |       |       |
| CU0007 | NREF     |       |       |       |       |
| CU0011 | NREG     |       |       |       |       |
| CU0001 | NRF      |       |       |       |       |
| CU0003 | NRTPT    |       |       |       |       |
| CU0076 | NSQL     |       |       |       |       |
| CU0020 | NTANKBAS | 00013 | 00013 | 00065 | 00065 |
| CU0024 | NTGTS    |       |       |       |       |
| CU0030 | NTKSGN   | 00045 | 00045 |       |       |
| CU0014 | NTOTBASE |       |       |       |       |
| CU0012 | NTYPE    |       |       |       |       |
| CU0017 | NWOTYPE  |       |       |       |       |
| CU0017 | PLANTAPE |       |       |       |       |
| CU0002 | QBDDICT. | 00000 | 00010 |       |       |
| CU0142 | KBASLCC  |       |       |       |       |
| CU0003 | HDARWAY  | 00030 |       |       |       |
| CU0000 | RFLAT    |       |       |       |       |
| CU0062 | RFLONG   |       |       |       |       |
| CU0077 | RMAX     |       |       |       |       |
| CU0070 | SOURCE   |       |       |       |       |
| CU0006 | SPEEDTK  | 00050 | 00050 |       |       |
| CU0004 | STM.     | 00017 |       |       |       |
| CU0014 | STRKFL.  |       |       |       |       |
| CU0013 | TANKRGE  | 00002 | 00062 |       |       |
| CU0050 | TANKSPD  | 00051 | 00051 |       |       |
| CU0000 | TGFILE   |       |       |       |       |
| CU0001 | THEND.   | 00022 |       |       |       |
| CU0044 | TKOLYALF | 00053 | 00053 |       |       |
| CU0040 | TKOLYNL  | 00055 | 00055 |       |       |
| CU0001 | TKLAT    | 00036 | 00036 |       |       |
| CU0002 | TKLONG   | 00040 | 00040 |       |       |
| CU0074 | TKRLAT   | 00037 | 00037 |       |       |
| CU0170 | TKRLONG  | 00041 | 00041 |       |       |
| CU0034 | TKTGS    | 00057 | 00057 |       |       |
| CU0010 | IMPALCC  |       |       |       |       |
| CU0124 | TRANGE   | 00063 | 00063 |       |       |
| PU0065 | TS00001. | 00025 |       |       |       |
| CU0011 | TICS     | 00056 | 00056 |       |       |
| PU0026 | WS00001. | 00066 | 00066 |       |       |
| CU0145 | SYMBCLS  |       |       |       |       |

```

FUNCTION LATCV (A)
  CSUBR
  LATCV = ZDECTU *****
  C CONVERTS A FLOATING POINT LAT OR LON TO THE FORM *****
  C UDDMMSSM FOR PRINTOUT IN A FORMAT, WHERE *****
  C DDD = DEGREES, MM = MINUTES, SS = SECONDS AND HHE/M/S/N *****
  C DESIGNATES WHICH HEMISPHERE *****
  C TYPE INTEGER SECFIX *****
  C TYPE REAL LATFLT, LATFLT1, MINFLT, MINFLT1 *****
  LATFLT = A *****
  LMEM = IRN *****
  IF (LATFLT) 1, 7 *****
  1 LMEM = IHS *****
  2 LATFLT = -LATFLT *****
  7 LATFLT1 = LATFIX = LATFLT *****
  MINFLT1 = MINFIX = MINFLT = (LATFLT-LATFLT1) *60. *****
  SECFIX = (MINFLT1-MINFLT1) *60. *****
  IF (SECFIX.EQ.00) 3,4 *****
  3 SECFIX = 0 5 MINFIX = MINFIX +1 *****
  4 IF (MINFIX .EQ.00) 5, 6 *****
  5 MINFIX = 0 5 LATFIX = LATFIX +1 *****
  6 LERESFIX=SECFIX+100*MINFIX+10000*LATFIX+10000000 *****
  ENCODE (8,10,LATCV), LERESFIX *****
  10 FORMAT(I8) *****
  LATCV=LATCV-1000000000000000000 *****
  LATCV=LATCV*60+LMEM *****
  RETURN *****
  ENTRY LONCV *****
  LATFLT = A *****
  LMEM = IRN *****
  IF (LATFLT.GT.180) 11, 7 *****
  11 LMEM = IRE *****
  LATFLT = 360. - LATFLT *****
  GO TO 7 *****
  END *****

```

5.4TS

LATCV

PROGRAM LENGTH  
ENTRY POINTS

LATCV  
LONCV

EXTERNAL SYMBOLS

IDENT

LATCV

U0176  
U0006  
U0076

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LATCV

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PU0003 A  
PU0123 BEGIN.  
PU0122 CNVRT1.  
PU0003 CRFT.  
PU0001 DICT.  
X00004 ENC.  
PU0142 ENDING.  
PU0000 EXIT.  
PU0003 FCRHAF.  
PU0012 FP000C1.  
PU0102 FP00002.  
PU0157 GETPL.  
PU0147 GETPU.  
PU0072 GG00000.  
PU0123 INITIAL.  
PU0017 .1  
PU0107 .11  
PU0021 .2  
PU0040 .3  
PU0051 .4  
PU0053 .5  
PU0050 .6  
PU0023 .7  
PU0160 .ERASER.  
PU0003 .10  
PU0006 LATCV  
PU0172 LATFIX  
PU0117 LATFLT  
PU0116 LATFLT  
PU0173 LERESFIX  
PU0174 LHEK  
PU0076 LONCV  
PU0175 MINFIX  
PU0115 MINFLT  
PU0114 MINFLT  
PU0141 PF00002.  
X00001 Q1010100  
X00003 Q80010100  
X00005 Q80010100  
PU0120 Q80010100  
X00002 Q80010100  
PU0113 VALUE.  
PU0052 SYMBCLS

UU012  
UU0141  
UU0067  
UU0172  
UU0100  
UU0064  
UU0111  
UU0146  
UU0135  
UU0137  
UU0130  
UU0153  
UU0101  
UU016  
UU045  
UU052  
UU015  
UU0060  
UU0066  
UU0025  
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UU044  
UU070  
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UU0154  
UU0071  
UU0100  
UU0126  
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UU0075  
UU0101  
UU0123  
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UU0125  
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UU045

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UU067  
UU020  
UU074  
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UU057  
UU041  
UU042  
UU034  
UU007  
UU007  
UU047  
UU057  
UU072  
UU073  
UU075  
UU045

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```

SUBROUTINE LAUNCH
  CSUBH      LAUNCH  2DEC70 *****
  C          LAUNCH COMPUTES AIM POINT FOR ASM *****
  CUSE       LASM  2DEC70 *****
  COMMON/LASM/ V1,V2,V2,UAT,VAT,RASM,RLAT,RLONG *****
  LASM *****
  LASM *****
  LAUNSNAP  2DEC70 *****
  COMMON/LAUNSNAP/INRANGE,FRACPATH *****
  LAUNSNAP *****
  IF (RASM.LE.0.15,6
5  RLAT=UAT
  RLONG=VAT
  RETURN
6  CONTINUE
  INRANGE=1
  ALF=COSF(UAT/57.2957795)
  GASM=RASM/60. $ COM=GASM*.75 $GASH2=GASM*GASM
  AI=(DIFFLONG(VAT,V1))*ALF
  BI=UAT-UI
  RISQ=AI*AI+BI*BI
  IF (RISQ.LT.GASH2) 10, 20
10  RLAT=UI $ RLONG=V1 $ GO TO 80
20  A=(DIFFLONG(V2,V1))*ALF
    B=UC-UI $ PATHSQ=A*A + B*B
    IF (PATHSQ.LT.0.0000001)26,25
25  TEMP1=BI*A-AI*B
    BIPSO=TEMP1*TEMP1/ PATHSQ
    A2=A-A1 $ B2=B-B1 $ R2SQ=A2*A2+B2*B2
    IF (BIPSQ.LT.GASH2) 30,60
50  FRACPATH=(TEMP2-SORTF(TEMP2*TEMP2*PATHSQ*(RISQ-GASH2)))/PATHSQ
    AF=AF+FRACPATH $BF=BF+FRACPATH $ GO TO 70
60  INRANGE=0
    DI=SORIF(RISQ)-CON $ D2=SORIF(R2SQ)-CON
    FRACPATH=DI/(DI+D2)
    AT=AF+FRACPATH $ BT=B+FRACPATH
    ATMB1=AT-A1
    BTMB1=BT-B1
    DIST=SORF(ATMB1*ATMB1+BTMB1*BTMB1)
    AF=AF+GASH*ATMB1/DIST
    BF=BF+GASH*BTMB1/DIST
70  RLAT=UI+BF $ RLONG=V1 + AF/ALF
    IF (RLONG.GT.360.) 75, 80
75  RLONG=RLONG-360.
80  CALL SNAPIT(5,1)
  RETURN
END

```

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

U0302  
U0003

IDENT LAUNCH

LAUNCH  
LASM  
LAUNSNAP

U0011  
U0002

EXTERNAL SYMBOLS  
Q000ICT.  
DIFFLONG  
SNAPIT  
SWRTF  
COSF

5-4TS LAUNCH

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A

A1

A2

AF

ALF

AT

ATM1

B

B1

B2

B3

B4

BEGIN.

BF

BT

BTM1

CCW

CCSF

D1

D2

DICT.

DIFFLNG

DIST

ENDING.

EXIT.

FRACPATH

GASH

GASH2

INITIAL.

INRANGE

.10

.20

.25

.26

.30

.40

.50

.55

.60

.65

.70

.75

.80

.ERASER.

LAUNCH

PATHSC

QBQDICT.

RISQ

R2SQ

R2SQ

R2SQ

RLAT

RLCNG

SNAPIT

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5.015 LAUNCH

X00004 SORTF  
 P00300 TEMP1  
 P00301 TEMP2  
 C00000 U1  
 C00002 U2  
 C00004 UAT  
 C00001 V1  
 C00003 V2  
 C00005 VAT  
 00075 SYMCLS

00105  
 00070  
 00124  
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 00012  
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 00013

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00156  
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 00016  
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 00017  
 00221

00162  
 00136  
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 00215  
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 00222

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```

SUBROUTINE LNCMDATA
  LNCMDATA 20MAY71
  FILES 16FEB71
  COMMON /FILES/ TOTFILE(2),BASFILE(2),MSLTINE(2),ALOCJAR(2),
    * TMPALOC(2),ALOCGRP(2),STRKFL(2),SEVENTAPE,PLANTAPE
  C
  TYPE INTEGER TOTFILE,BASFILE,ALOCJAR,TMPALOC,ALOCGRP,STRKFL
  TYPE INTEGER SEVENTAPE,PLANTAPE
  FILES
  ITP 20EC70
  COMMON/ITP/ITP
  ITP
  MYIDENT 20EC70
  COMMON/MYIDENT/MYIDENT
  MYIDENT
  MASTER 16FEB71
  COMMON/MASTER/MASTER,IDENT,ISIDE,NRPT,NCORR,NOPEN,NRECOVER
  1,NREF,NBDRY,NMEX,NNTYPE,NORCUP,NICIBASE,NPAYLCAU,NASHI,NMHDTYPE
  2,NTANKBAS,NCOMPLEX,NCLASS,NALERT,NTIGS,NCORTYPE,NCNTRY
  MASTER
  TIMELINE 16FEB71
  COMMON/TIMELINE/ ITIME,TYP(40), CORMSLX(40), FLTIM(40)
  1,INDXFIX(1000),TIME(1000),TOATA(252),ZLAT(50,2),ZLONG(50,2)
  2,XC(50),YC(50),ZC(50),DL(50),TMLNCH(10),GOLD
  3,NFIAPS,NLEFT,NLINES,MSLFL(5)
  TYPE INTEGER GSAVE, GOLD
  TYPE LOGICAL ITIME,TYP
  EQUIVALENCE (GSAVE,MSLFL(1)),(NDEKSAVE,MSLFL(2))
  EQUIVALENCE (ITIME,SAVE,MSLFL(5))
  DIMENSION ITDATA(252)
  EQUIVALENCE (ITDATA, I(1))
  DATA (NLINES = 0), (CORCHK = 32400), (GOLD = 0)
  DATA ITDOP1 = 0.2831853070, ICH = 0.01745359252)
  TIMELINE
  BLOCK 16FEB71
  COMMON/BLOCK/ LOCK(320)
  DIMENSION BLOCK(320)
  EQUIVALENCE (LOCK, BLCK)
  BLOCK
  C
  C READ LINE DATA
  C
  1001 READ 1002, (LOCK(I), I = 1, 32)
  1002 FORMAT (8I4,1A,2,1A,2,A1)
  IF (LOCK(1) .EQ. 8H ) 1100, 1003
  C
  C GET LAT AND LONG AND PUT IN RIGHT FORMAT
  C
  1003 DC 1099 K = 1, 17, 16
  IF (LOCK(K) .EQ. 8H ) 1099, 1004
  1004 NLINES = NLINES + 1
  IF (NLINES .GT. 50) 1005, 1006
  1005 READ 1002, LOCK(1)
  IF (LOCK(1) .EQ. 8H ) 1100, 1005
  1006 L = 0 3 KK = K + 8
  DC 1013 J = K, KK, 8

```

```

L = L + 1
FD = NUMGET(LOCK(J), J)
FM = NUMGET(LOCK(J+1), 2)
FS = NUMGET(LOCK(J+2), 2)
ZLAT(NLINES, L) = FD + FM/60. + FS/3600.
IF (LOCK(J+3) .EQ. 1H) 1007, 1008
1007 ZLAT(NLINES, L) = -ZLAT(NLINES, L)
1008 FD = NUMGET(LOCK(J+4), 3)
FM = NUMGET(LOCK(J+5), 2)
FS = NUMGET(LOCK(J+6), 2)
ZLONG(NLINES, L) = FD + FM/60. + FS/3600.
IF (LOCK(J+7) .EQ. 1H) 1009, 1013
1009 ZLONG(NLINES, L) = -ZLONG(NLINES, L)
1013 CONTINUE
DL(NLINES) = DISTF(ZLAT(NLINES, 1), ZLONG(NLINES, 1), ZLAT(NLINES, 2),
1 ZLONG(NLINES, 2))
C
C COMPUTE PERPENDICULAR TO PLANE OF LINE
C
A01 = TNSPI - CR * ZLONG(NLINES, 1)
A02 = TNSPI - CR * ZLONG(NLINES, 2)
DL1 = CR * ZLAT(NLINES, 1)
DL2 = CR * ZLAT(NLINES, 2)
CUS = COSF(DL1)
R11 = COSF(A01) * CUS
R12 = SINF(A01) * CUS
R13 = SINF(DL1)
CUS = COSF(DL2)
R21 = COSF(A02) * CUS
R22 = SINF(A02) * CUS
R23 = SINF(DL2)
XC(NLINES) = R23 * R14 - R13 * R22
YC(NLINES) = R21 * R13 - R11 * R23
ZC(NLINES) = R11 * R22 - R12 * R21
1099 CONTINUE
GC TO 1001
C
C READ AND STORE CORMSLX DATA
C
1100 DC 1101 J = 1, 40
CORMSLX(J) = -10.E+7
ITIMETYP(J) = 0
1101 FLTIMIN(J) = 0.0
1102 READ 1103, (LOCK(I), I=1, 3), BLOCK(4), BLOCK(5), (LOCK(I), I=6, 8)
1103 FORMAT (2(A8, A2, A8, 2X, 2F10.0))
1104 IF (LOCK(1)) .EQ. 8H .AND. LOCK(2) .EQ. 8H
1104 DC 1199 J = 1, 6, 5
10 = NUMGET(LOCK(J), 10)
IF (10 .LT. 1) .OR. 10 .GT. 40 1199, 1105
1105 FLTIMIN(10) = BLOCK(J+1)/60.
CORMSLX(10) = BLOCK(J+3)
IF (LOCK(J+2) .EQ. 4HLINE) 1106, 1107
C
C ITIMETYP=0 CORMSLX IS PERCENT OF FLIGHT PATH COMPLETE AT T=0.0
C ITIMETYP=1 CORMSLX IS TIME ON LINE
C

```

```

C
1106 ITIME(TP(ID) = 1
      CSMSLA(ID) = CSMSLX(ID)/60.
      GO TO 1199
1107 IF (CSMSLA(ID) .GT. 1.0) 1108, 1109
1108 CSMSLX(ID) = 1.0
      GO TO 1199
1109 IF (CSMPSLX(ID) .LT. 0.0) 1110, 1199
1110 CSMPSLX(ID) = 0.0
1199 CONTINUE
      GO TO 1102

C
C      HEAD FIRST FIXED WEAPON RECORD FROM MSLTIME FILE.
C
1200 MYIDENT=HMSLTIME
      ITP=MSLTIME(1)
      CALL SETREAD
      CALL READHAY(MSLFILDS)
      IF (GSAVE.LE.NONGUP) GO TO 2000
      GSAVE=ICQO
      PRINT 1208
1208 FORMAT (/4SHUNG FIXED MISSILE INFORMATION ON MSLTIME FILE )
2000 PRINT 2001, NLINES
2001 FORMAT (/9H LNCUATA//6H LINES,14//3H NO.3X,5HZLAT1,X,6HZLONG1,
      1 3X,5HZLAT2,X,6HZLON2,3X,6HLENGTH,14X,6HXCROSS,3X,6HXCROSS,
      2 JA, 6HZCROSS)
      PRINT 2002(JX,1ZLAT(JX,1X),1ZLON(JX,1X),1X=1.2),DL(JA),AC(JA),
      1 VC(JA), ZC(JA),
      1 JA = 1, NLINES)
2002 FORMAT(1X, 12, 5F9.3, 10X, 3F9.3)
      PRINT 2003
2003 FORMAT (/12H COMPSL DATA//30H LITP TYPE CSMPSL MIN FLT )
      PRINT 2004, JX, ITIME(TP(JX), CSMPSL(JX), FLTIME(JX), JX=1.40)
2004 FORMAT(1X, 13, 13, 3X, 10.3, F10.3)
      PRINT 2005, GSAVE
2005 FORMAT (/20H FIRST FIXED GROUP =,14)
      RETURN
      END
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DATA LNCMDATA

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|                 |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P01062 AD1      | 00400 | 00413 | 00417 |       |       |       |       |       |       |
| P01063 AD2      | 00403 | 00421 | 00435 |       |       |       |       |       |       |
| C00012 ALCCSRP  |       |       |       |       |       |       |       |       |       |
| C00006 ALCCFAR  |       |       |       |       |       |       |       |       |       |
| C00002 BASFILE  |       |       |       |       |       |       |       |       |       |
| P00039 BEGINS   | 01040 | 00513 | 00515 | 00525 | 00527 | 00555 | 00560 | 00561 |       |
| C00000 BLOCK    | 00513 | 00227 | 00505 | 00512 | 00517 | 00524 | 00551 | 00565 | 00672 |
| P00082 CNVRT11. | 00673 | 00700 | 00701 | 00702 | 00730 | 00741 | 00755 |       |       |
| P00003 CORCHK   | 00470 | 00470 | 00561 | 00562 | 00571 | 00573 | 00576 | 00576 | 00602 |
| C00002 CORMSLX  | 00603 | 00605 | 00605 | 00611 | 00612 | 00740 |       |       |       |
| X00012 CCSE     | 00411 | 00414 | 00427 | 00432 |       |       |       |       |       |
| P01064 CCUNT.   | 00375 | 00400 | 00403 | 00406 | 00712 | 00750 | 0076  |       |       |
| P00005 CR       | 00205 | 00534 | 00544 | 00544 | 00434 | 00440 |       |       |       |
| P00006 CRFMT.   | 00413 | 00416 | 00422 | 00431 | 00434 | 00440 |       |       |       |
| P00005 CUS      | 00166 | 00172 | 00204 | 00225 | 00232 | 00256 | 0027  | 00331 | 00341 |
| P00001 DICT.    | 00371 | 00412 | 00415 | 00421 | 00425 | 00430 | 00437 | 00501 | 00531 |
|                 | 00546 | 00622 | 00625 | 00640 | 00643 | 00646 | 00653 | 00711 | 00717 |
|                 | 00722 | 00736 | 00747 | 00752 | 00757 |       |       |       |       |
| X00006 DISIF    | 00370 | 00374 | 00677 | 00700 |       |       |       |       |       |
| C05174 LL       | 00374 | 00374 | 00677 | 00700 |       |       |       |       |       |
| P01066 DL1      | 00405 | 00410 | 00423 |       |       |       |       |       |       |
| P01067 UL2      | 00410 | 00426 | 00441 |       |       |       |       |       |       |
| P01041 ENDING.  | 00167 | 00760 | 01037 | 01040 |       |       |       |       |       |
| C00016 EVENTA.E |       |       |       |       |       |       |       |       |       |
| P00000 EXIT.    | 01042 | 00304 | 00326 | 00347 | 00742 |       |       |       |       |
| P01070 FD       | 00263 | 00475 | 00557 | 00560 |       |       |       |       |       |
| C00052 FLTHA    | 00474 | 00303 | 00336 | 00346 |       |       |       |       |       |
| P01071 FM       | 00273 | 00410 | 00233 | 00243 | 00532 | 00540 | 00515 |       |       |
| P00006 FORMAT.  | 00205 | 00410 | 00233 | 00243 |       |       |       |       |       |
| P01072 FS       | 00303 | 00305 | 00346 | 00350 |       |       |       |       |       |
| P00205 G600000. | 00170 |       |       |       |       |       |       |       |       |
| P00233 G600001. | 00223 |       |       |       |       |       |       |       |       |
| P00532 G600002. | 00477 |       |       |       |       |       |       |       |       |
| P00644 G600003. | 00636 |       |       |       |       |       |       |       |       |
| P00654 G600004. | 00644 |       |       |       |       |       |       |       |       |
| P00712 G600005. | 00654 |       |       |       |       |       |       |       |       |
| P00720 G600006. | 00712 |       |       |       |       |       |       |       |       |
| P00750 G600007. | 00720 |       |       |       |       |       |       |       |       |
| P00760 G600010. | 00750 |       |       |       |       |       |       |       |       |
| C05300 GOLD     | 00004 |       |       |       |       |       |       |       |       |
| C05304 GSARE    | 00630 | 00634 | 00635 | 00635 | 00754 | 00754 |       |       |       |
| P01073 I        | 00175 | 00177 | 00201 | 00504 | 00506 | 00510 | 00520 | 00522 |       |
| P01074 ID       | 00550 | 00552 | 00557 | 00566 | 00575 | 00602 | 00604 | 00611 |       |
| C00001 IDENTG   |       |       |       |       |       |       |       |       |       |
| P00535 IF00001. | 00551 |       |       |       |       |       |       |       |       |
| P00552 IF00002. |       |       |       |       |       |       |       |       |       |
| C00000 IMDATE   |       |       |       |       |       |       |       |       |       |
| P00763 IN00004. | 00307 | 00313 | 00352 | 00357 | 01024 | 01034 |       |       |       |
| P00764 IN00007. | 00670 | 00770 | 01002 | 01004 | 01014 |       |       |       |       |
| C00122 INDXFIX  |       |       |       |       |       |       |       |       |       |
| P0103 INITIAL.  | 00167 |       |       |       |       |       |       |       |       |

|        |         |       |       |       |       |       |       |
|--------|---------|-------|-------|-------|-------|-------|-------|
| CU0002 | ISIDE   |       |       |       |       |       |       |
| CU0042 | ITDATA  |       |       |       |       |       |       |
| CU0000 | ITMETYP |       |       |       |       |       |       |
| CU0000 | ITP     |       |       |       |       |       |       |
| P00033 | .100001 | 00620 | 00733 |       |       |       |       |
| P00034 | .100002 | 00632 |       |       |       |       |       |
| P00170 | .1001   | 00663 |       |       |       |       |       |
| P00210 | .1003   | 00207 |       |       |       |       |       |
| P00216 | .1004   | 00215 |       |       |       |       |       |
| P00223 | .1005   | 00235 |       |       |       |       |       |
| P00236 | .1006   | 00222 |       |       |       |       |       |
| P00313 | .1007   |       |       |       |       |       |       |
| P00316 | .1008   | 00312 |       |       |       |       |       |
| P00356 | .1009   |       |       |       |       |       |       |
| P00361 | .1013   | 00355 |       |       |       |       |       |
| P00461 | .1099   | 00215 |       |       |       |       |       |
| P00464 | .1100   | 00207 |       |       |       |       |       |
| P00474 | .1101   |       |       |       |       |       |       |
| P00477 | .1102   | 00614 |       |       |       |       |       |
| P00540 | .1104   | 00537 |       |       |       |       |       |
| P00555 | .1105   | 00554 |       |       |       |       |       |
| P00565 | .1106   |       |       |       |       |       |       |
| P00575 | .1107   | 00564 |       |       |       |       |       |
| P00601 | .1108   |       |       |       |       |       |       |
| P00604 | .1109   | 00600 |       |       |       |       |       |
| P00610 | .1110   |       |       |       |       |       |       |
| P00613 | .1119   | 00551 |       |       |       |       |       |
| P00615 | .1200   | 00537 |       |       |       |       |       |
| P00644 | .2000   | 00633 |       |       |       |       |       |
| P01043 | .ERASE  | 00305 |       |       |       |       |       |
| P00020 | .100000 | 00206 |       |       |       |       |       |
| P00021 | .100001 | 00214 |       |       |       |       |       |
| P00022 | .100002 | 00234 |       |       |       |       |       |
| P00023 | .100003 | 00312 |       |       |       |       |       |
| P00024 | .100004 | 00355 |       |       |       |       |       |
| P00036 | .100005 | 00533 |       |       |       |       |       |
| P00037 | .100006 | 00536 |       |       |       |       |       |
| P00040 | .100007 | 00564 |       |       |       |       |       |
| P00041 | .100008 | 00615 |       |       |       |       |       |
| P00006 | .1002   | 00173 |       |       |       |       |       |
| P00025 | .1103   | 00502 |       |       |       |       |       |
| P00042 | .1208   | 00641 |       |       |       |       |       |
| P00054 | .2001   | 00647 |       |       |       |       |       |
| P00121 | .2002   | 00657 |       |       |       |       |       |
| P00130 | .2003   | 00715 |       |       |       |       |       |
| P00144 | .2004   | 00723 |       |       |       |       |       |
| P00154 | .2005   | 00753 |       |       |       |       |       |
| P00257 | .200001 | 00254 |       |       |       |       |       |
| P00267 | .200002 | 00264 |       |       |       |       |       |
| P00277 | .200003 | 00274 |       |       |       |       |       |
| P00322 | .200004 | 00317 |       |       |       |       |       |
| P00332 | .200005 | 00327 |       |       |       |       |       |
| P00342 | .200006 | 00337 |       |       |       |       |       |
| P00372 | .200007 | 00364 |       |       |       |       |       |
|        |         | 00365 | 00366 | 00367 |       |       |       |
|        |         | 00306 | 00350 | 00351 | 00445 | 00456 | 00457 |
|        |         | 00554 | 00574 | 00603 | 00607 |       |       |
|        |         | 00554 |       |       |       |       |       |

5.4TS LACHUATA

|        |           |       |
|--------|-----------|-------|
| PU0547 | *Z00U10   | CU544 |
| PU0737 | *Z00U11   | UU734 |
| PU0755 | J         | UU243 |
| PU076  | JX        | UU661 |
| PU077  | K         | UU211 |
| PU078  | KK        | UU242 |
| PU079  | KK        | UU237 |
| PU084  | L         | UU164 |
| PU084  | LNCMDATA  | UU200 |
| CU0000 | LOCK      | CU257 |
| PU1102 | LX        | UU336 |
| CU5304 | MSLFIL    | UU535 |
| CU0004 | MSLTPE    | UU666 |
| CU0000 | MYIDENT   | UU626 |
| CU0023 | NALERT    | UU617 |
| CU0016 | NASMTYPE  | UU616 |
| CU0010 | NBNDRY    |       |
| CU0022 | NCLASS    |       |
| CU0026 | NCONTH    |       |
| CU0021 | NCOMPLX   |       |
| CU0004 | NCONR     |       |
| CU0025 | NCONTYPE  |       |
| CU5305 | NDEXSAVE  |       |
| CU0005 | NOPEN     |       |
| CU5301 | NFIXMPS   | UU631 |
| CU0013 | NGRUP     | UU003 |
| CU0032 | NLEFT     | UU020 |
| CU5303 | NLINES    |       |
| CU0015 | NPAYLOAD  |       |
| CU0006 | NRECOVER  |       |
| CU0007 | NREF      |       |
| CU0011 | NREG      |       |
| CU0003 | NRTPT     |       |
| CU0020 | NSTANFAS  |       |
| CU0024 | NTGTS     |       |
| CU0014 | NTGTBASE  |       |
| CU0012 | NTYPE     |       |
| XX0005 | NUMGET    | UU255 |
| CU0017 | NWMMTTYPE |       |
| PU0770 | P00002+U  | UU773 |
| PU0604 | P00003+U  | UU006 |
| CU0017 | PLANTAPE  |       |
| XX0002 | Q01004U   | UU472 |
| XX0004 | QBDDICT   | UU000 |
| XX0015 | QBDDICT4  | UU735 |
| XX0003 | QBDEVAL   | UU732 |
| XX0016 | QBSINGL   | UU761 |
| PU0103 | R11       | UU416 |
| PU0104 | R12       | UU422 |
| PU0105 | R13       | UU426 |
| PU0106 | R21       | UU434 |

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**PAGE NO.**

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|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 00250 | 00465 | 00465 | 00541 | 00541 | 00731 | 00743 | 01011 |       |       |
| 00664 | 00677 | 00704 | 00725 | 00727 | 00731 | 00743 | 01011 |       |       |
| 00212 | 00241 | 00243 | 00244 | 00462 |       |       |       |       |       |
| 00244 |       |       |       |       |       |       |       |       |       |
| 00251 | 00252 | 01030 |       |       |       |       |       |       |       |
| 00200 | 00205 | 00205 | 00213 | 00213 | 00230 | 00230 | 00233 | 00233 | 00254 |
| 00263 | 00267 | 00273 | 00277 | 00310 | 00311 | 00316 | 00322 | 00326 | 00332 |
| 00342 | 00353 | 00354 | 00507 | 00507 | 00521 | 00521 | 00532 | 00532 | 00535 |
| 00543 | 00547 | 00562 | 00563 |       |       |       |       |       |       |
| 00674 | 00776 |       |       |       |       |       |       |       |       |
| 00617 |       |       |       |       |       |       |       |       |       |
| 00616 |       |       |       |       |       |       |       |       |       |
| 00631 |       |       |       |       |       |       |       |       |       |
| 00216 | 00216 | 00217 | 00221 | 00362 | 00362 | 00450 | 00650 | 00706 | 00706 |
| 01020 |       |       |       |       |       |       |       |       |       |
| 00265 | 00275 | 00320 | 00330 | 00340 | 00545 |       |       |       |       |
| 00567 |       |       |       |       |       |       |       |       |       |
| 00165 |       |       |       |       |       |       |       |       |       |
| 00452 | 00455 |       |       |       |       |       |       |       |       |
| 00444 | 00446 |       |       |       |       |       |       |       |       |
| 00445 | 00451 |       |       |       |       |       |       |       |       |
| 00445 | 00457 |       |       |       |       |       |       |       |       |

| 5.4TS  | LNCMDATA | 11/26/71 | ED    | 0     | PAGE NO. | 8     |
|--------|----------|----------|-------|-------|----------|-------|
| P01107 | R22      | 00440    |       |       |          |       |
| P01110 | R23      | 00444    |       |       |          |       |
| X00010 | RDARRAY  | 00624    |       |       |          |       |
| P00766 | RELCON.. | 00623    |       |       |          |       |
| X00007 | SETREAD  | 00621    |       |       |          |       |
| X00011 | SINF     | 00420    |       |       |          |       |
| X00014 | STH.     | 00637    |       |       |          |       |
| C00014 | STRKFL   | 00436    | 00713 | 00751 |          |       |
| C00042 | TDATA    | 00655    |       |       |          |       |
| C00000 | TGFILE   |          |       |       |          |       |
| X00001 | TNEND.   | 00203    |       |       |          |       |
| C02072 | TIME     | 00231    | 00530 | 00716 | 00746    | 00756 |
| C05310 | TIMESAVE |          |       |       |          |       |
| C05250 | TMLNCH   |          |       |       |          |       |
| C00010 | TMPLACC  |          |       |       |          |       |
| P00362 | TS00003. | 00245    |       |       |          |       |
| P00706 | TS00011. | 00663    |       |       |          |       |
| X00013 | TSM.     | 00171    |       |       |          |       |
| P00004 | TWCP1    | 00377    |       |       |          |       |
| P00775 | UP00002. | 00607    |       |       |          |       |
| P01010 | UP00003. | 00662    |       |       |          |       |
| P01017 | UP00004. | 00220    |       |       |          |       |
| P01027 | UP00006. | 00240    |       |       |          |       |
| P00176 | W500001. | 00202    |       |       |          |       |
| P00212 | W500002. | 00403    |       |       |          |       |
| P00251 | W500003. | 00301    |       |       |          |       |
| P00467 | W500004. | 00476    |       |       |          |       |
| P00505 | W500005. | 00511    |       |       |          |       |
| P00517 | W500006. | 00523    |       |       |          |       |
| P00543 | W500007. | 00513    |       |       |          |       |
| P00670 | W500010. | 00676    |       |       |          |       |
| P00664 | W500011. | 00707    |       |       |          |       |
| P00727 | W500012. | 00745    |       |       |          |       |
| C04746 | XC       | 00447    | 00701 |       |          |       |
| C05030 | YC       | 00453    | 00702 |       |          |       |
| C05112 | ZC       | 00460    | 00703 |       |          |       |
| C04436 | ZLAT     | 00307    | 00314 | 00363 | 00373    | 00404 |
|        |          | 00406    | 00671 |       |          |       |
| C04002 | ZLCNG    | 00352    | 00357 | 00364 | 00372    | 00376 |
|        |          | 00401    | 00673 |       |          |       |

00277 SYMBOLS



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SUBROUTINE PLANTANK
  CSUBR PLANTANK 23JUN71
  C GENERATES TANKER PLANS
  CUSE ARTIME 5FEB71
  COMMON/ARTIME/ARTIME(50),NBUDREF,NBOMBREF(50),NTANKREF(50),
  *EQUIVALENCE (IAVLS,ANVLS)
  EQUIVALENCE (IAVLS,ANVLS)
  CUSE ARTIME *****
  CUSE CONTROL 2DEC70 *****
  COMMON/CONTROL/ICE,LSIDE,NPLCT,LSIZE,SCALE
  CUSE CONTROL *****
  DINDATA 2DEC70 *****
  COMMON/DINDATA/MDT(90),KPL(90),JIP(90),MLA(90),MLC(90),TZT(90),
  ITZN(90),PA(90),MMT,NPL
  CUSE DINDATA *****
  DINDATA2 2DEC70 *****
  COMMON/DINDATA2/AC/CP(90),IM(90)
  CUSE DINDATA2 *****
  REF 2DEC70 *****
  COMMON/REF/MLAT(50),MFLGND(50)
  CUSE REF *****
  EVENTS 2DEC70 *****
  COMMON/EVENTS/LAUNCH,LAUNCH,LENEFUEL,INSECTOR,LOCCLATIR,LAUNCHM
  *LAUNCH,LAUNCH,LCMI,MISSATN,LEWUC,LABCRT,LENTREF,LEAVEREF
  *JGCHI,IGOLDW
  CUSE EVENTS *****
  ICLASS 2DEC70 *****
  COMMON/ICLASS/ICORREN,ITANKER
  CUSE ICLASS *****
  INDATA 16FEB71 *****
  COMMON/INDATA/INDATA,INBASE,INDV,INDUM1(2),ILAST,INDUM2(2),
  LITYPE,ICLASS,INER,IALER(3),IDUM3(3),IALT,NCMS,IDUM4(3),
  2MFL,MMT,INDUM4(2),ANPLAN,INDUM5,INC(80),INUP(80),INDE(80),INTYP(12),
  JALGZ(12),YOGZ(12),ZOGZ(12),IDUM6(6)
  TYPE INTEGER A00Z,Y00Z,Z00Z
  C
  DIMENSION ISV(6)
  EQUIVALENCE (ISV, INUV), (FILAST, ILAST)
  CUSE INDATA *****
  ICUTOLD 16FEB71 *****
  COMMON/ICUTOLD/ICUTOLD,KCKC,MYGUCUP,MYCORRC,LPAVLCAU,LKREF,LDPEN
  1 *SPUMIC,SPULCO,JFCING,NHAPC,IBJEC(20),IBDES(20),IBTSKC(20),
  2 ICUTY(20),IBFLG(20)
  CUSE ICUTOLD *****
  IRF 2DEC70 *****
  COMMON/IRF/IRF,NRF
  CUSE IRF *****
  IRFTK 2DEC70 *****
  COMMON/IRFTK/IRFTK
  CUSE IRFTK *****
  ITP 2DEC70 *****
  COMMON/ITP/ITP
  CUSE ITP *****
  KEYLENG 2DEC70 *****
  COMMON/KEYLENG/ LGS, LIN, LDN, LINC, LTK, LMS, LMC, LDBL
  CUSE KEYLENG *****

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```

CUSE KEYS ZDECTO *****
COMMON/KEYS/NEUPEN,KEYM
C USED BY PLNTPLANTANK
CUSE KEYS 10FEB71 *****
COMMON/MASTER/INDATE,IDENTING,LADE,INPT,INCRN,NDPEN,MEECOVER
10NEE,INBUD,INRE,INITYE,INONCUP,INICBASE,INPAYLAD,INMOTYPE
2,INANKBAS,INCOMPLEX,INCLASS,INALERT,INIGTS,INCRITYE,INCNIT
MASTER *****
CUSE MAX 10FEB71 *****
COMMON/MAX/ MAINDEZ, MALENI, MASHITY, MBNDRT, MCREGN,
1 MCLASS, MCNIRYS, MCONR, MCRITY, MDPEN,
2 MDEPLG, MGRUP, MPAYLAD, MREGVM,
3 MRECLG, MHEF, MITLEY, MITBI,
4 MSPEHT, MIANKS, MIARCS, MIARGL, MIARCPX,
5 MIAREKS, MIARETS, MIARIND, MIARSEC, MIARTEL,
6 MIARTYP, MIARVAL, MIARVAL, MIOTAS,
7 MTYPE, MVULN, MEARUP, MMDTPE, MZONEPT,
8 MZONES, MIARPL *****
CUSE MAX *****
COMMON/MAX *****
CUSE MYIDENT ZDECTO *****
COMMON/MYIDENT/MYIDENT *****
CUSE MYIDENT *****
COMMON/MYIDENT *****
CUSE CUISNI 10FEB71 *****
COMMON/CUISNI/CUISNI *****
1,MYGRUP,MYCON,MYNET,MYEF,LOPEN,IPAYLAD,LNCHBASE,ITYP
2,BLAT,BLON,INAP,IRTYE(10),BLAT(10),BLONG(10),DLONG(10)
3,IBJEC(10),IBJES(10),IBJIS(10),IBJTY(10),IBFLG(10),IBTRCUT(10),
4,SMACUT(10),GOLCM2,GOLCM3,SPOLC,
5,SPH,MANGE,MANDEREF,DELA,IBG,INT,IDCMGER,AVAILCM,INBDEC
/CUISNI/ IS THE INPUT MEGND FROM STKFILE
CUSE CUISNI *****
COMMON/CUISNI *****
CUSE PLANTYPE ZDECTO *****
COMMON/PLANTYPE/INITSRN,CONSL,CONCHB *****
C CORBOM = THE DISTANCE (M.M.) FROM THE COMMON ENTRY POINT
C *****
C PLANTYPE *****
10 10FEB71 *****
COMMON /10/ NCBLAT(50*),NCBLON(50*),INDBAS(50*),INWCAP(50*),
10STR(50*),TGF(50*),
* USED BY PLNTPLANTANK
C 10 *****
COMMON/10 *****
CUSE SNAPN ZDECTO *****
COMMON/SNAPN/NAP(15) *****
CUSE SNAPN *****
COMMON/SNAPN *****
CUSE TANKER ZDECTO *****
COMMON/TANKER/INDEXIK,TKLAT,TKLON,IREFT,INPSNIR *****
1,NALBK,SPEDIR,DLVALIK,DLVNLK,ITCS,ITYETK,TANKRNGE
TANKER *****
CUSE FILES 10FEB71 *****
COMMON /FILES/ *****
1,TYPE(2),BASEFILE(2),MSLTIME(2),ALCCTAR(2),
TPALC(2),ALCGRP(2),STKFIL(2),EVENIAD,PLANTARE
* TYPE INTEGER 10FILE,BASFILE,ALCCTAR,TPALC,ALCGRP,STKFIL
C TYPE INTEGER EVENTARE,PLANTARE
CUSE FILES *****
24000

```

```

COMMON/TORU/TORU
EQUIVALENCE(IWCRU,ITWCRU)
CUSE 7 20MAY71 *****
COMMON /7/ IINDXK(60),IKHLAI(60),IKHLCHG(60),IREFTK(60),
* NIKPSUN(60),NALRTNK(60),TANASPD(60),IKDLVALT(60),
* IKULYNL(60),IKTICS(60),IITPK(60),IRANGE(60)
* *****
CENU 7 *****
CUSE 8 20EC70 *****
COMMON/8/RECLAI(50),RECLONG(50)
* *****
CENU 8 *****
CUSE 9 10FEB71 *****
COMMON/ 9/GCST(60,50),SOURCE(60),ISQ(110),RRASLCC(110),
* CHASLCC(110),NSQLRMAX,CMAX,IRCHK(60),IRCDIF,DIRSTREF(50)
* *****
* FILLR(304)
TYPE LOGICAL IRCHK
TYPE INTEGER GCST,SOURCE,RRASLCC,CHASLCC,RMAX,CMAX
TYPE INTEGER GCST TO NAME LENGTH OF BLOCK VAN CORRESPOND TO 9A+S
* *****
C 1000 PRINT 2
C 1001 FORMAT(1H1)
C 1002 JCTNG = BH 0
C 1003 DC 1009 I=1,60
C 1004 DC 1009 J=1,50
C 1005 GCST(I,J)=0
C 1006 DC 1010 I=1,60
C 1007 IRCHK(I)=0
C 1008 SOURCE(I)=0
C 1009 IRCDIF=0
C 1010 DC 1200 ITK=1,NTANKBAS
C 1011 IF (IREFTK(ITK) .EQ. 0) .OR. IREFTK(ITK) .LE. -J) 1020,1025
C 1012 SOURCE(ITK)=SOURCE(ITK)+NIKPSUN(ITK)
C 1013 GC TO 1170
C 1014 IRCHK(ITK)=1
C 1015 J=IREFTK(ITK)
C 1016 NEGMBREF(J)=NEGMBREF(J)-NIKPSUN(ITK)
C 1017 IF (NEGMBREF(J) .LT. 0) NEGMBREF(J)=0
C 1018 IRCDIF=IRCDIF+1
C 1019 DC 1190 IV=1,NMF
C 1020 DISTREF(IV)=DISTREF(ITKLAJ(IITK),IKRLONG(ITK),HFLAT(IV),RECLONG(IV))
C 1021 ICHNGNM=DISTREF(IV)+5
C 1022 GCST(ITK,IV)=ICHNGNM
C 1023 CONTINUE
C 1024 RMAX=NTANKBAS
C 1025 CMAX=NMF
C 1026 CALL VAN
C 1027 DC 1300 I=1,50
C 1028 ISPREF(I) = NEGMBREF(I) + 1
C 1029 NIKSRTYS=0

```

C

```
CALL CLINDATA
INDATA=LSIDE
ICLASS = ITANKER
SET INTAR FOR TANKERS
MYGROUP=MYGROUPC=-1
MYCRRG=ICUTOLU=0
IRF=0
LUPEN=LPALOAD=0
CALL SNAPCON
NPL=0
NTEFLENPLAN=7
CPT(1)=CMT(2)=CMT(3)=CMT(4)=CMT(5)=CMT(6)=CMT(7)=C
IMH(1)=IMH(2)=IMH(3)=IMH(4)=IMH(5)=IMH(6)=IMH(7)=C
JIP(1)=INDE(1)=LAUNB
JIP(2)=INDE(2)=LEAVEREF
JIP(3)=INDE(3)=LEAVEREF
JIP(4)=JIP(5)=JIP(6)=JIP(7)=LANDHC
INDE(4)=INDE(5)=INDE(6)=INDE(7)=LANDHC
DC 20 ITR=1,NTANKBAS
DC 100 IV=1,NKF
```

100 DISTREF(IV)=COST(ITK\*IV) RETRIEVE NEXT TANKER RECORD FROM /7/

C

```
INDEXK=IINXK(ITK)
TKLAT=TKRLAT(ITK)
TKLONG=TKRLONG(ITK)
IREFTK=IREFIK(ITK)
NPSUNTK=NTKPSUN(ITK)
NALRTK=NALRTNK(ITK)
SPEEDTK=TANKSPD(ITK)
OLYALTK=TKDLYAL(ITK)
DLYNLTK=TKDLYNL(ITK)
TICS=TKTICS(IJK)
ITYPEK=ITPTPK(ITK)
TANKRNG=TRANGE(ITK)
```

C

```
LREF=INEFTK
DLXX(1)=DLYALTK
DLXX(2)=DLYNLTK
NLXX(1)=NALRTK
NLXX(2)=NPSUNTK-NALRTK
ISXX(1)=0
ISXX(2)=NALRTK
DC 15 IXX=1,2
INBASE=INDEATK
INEFTK=IREFTK
ITYPE=ITYPEK
MUT(3)=TING(3)=TICS
KPL(1)=INDP(1)=INDEXTK
MLC(1)=TKLAT
NAL=NLXX(IXX)
ISTRSTY=ISXX(IXX)
IALERT=IXX
DC 10 IPI=1,NAL
IF(IREFTK)IPI,IUS,400
TANKER BASES WITH IREFTK OF -1,-2 ARE SKIPPED OVER
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C

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115000

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101 IF (IREFTK,GE,-2)102,105
102 PRINT 103,INDEXTA,IREFTK
103 FORMAT(10A,11H)TANKER BASE,16,2X,15HSKIPPED,IREFTK,13)
GC TO 20
C TANKER BASES WITH IREFTK OF 0,-3,-4,-5 ARE AUTOMATICALLY ALLOCATED
C CHOOSE REFUEL POINT TO SEND TANKER TO BY VAM SOLUTION
105 JREFLPT=C
TSURP = -24.0
DC 115 JRM=1,NSCL
IF (ISCL(JRK).GT.0)106,115
106 IF (RBSLCC(JRK).EQ.ITA)109,115
109 JREFLPT=RBSLCC(JRK)
ISCL(JRK)=ISCL(JRK)-1
110 CONTINUE
IF (RBSLCC(JRK).GT.NRF)300,120
115 CONTINUE
120 IREFTK=JREFLPT
GC TO 400
C ALL BOMBERS SERVICED--ALLOCATE SURPLUS EQUALLY
C OVER REACHABLE AREAS
300 KRM=0 $ ISURPO=1E6
DC 310 KRM=1,NRF
C IF (NGBMREF(KRM).EQ.0)310,303
303 IF (DISTREF(KRM)-TANKRMGE) 304,304,310
304 ISURP=100*ISPREF(KRM)/NGBMREF(KRM)
IF (ISURP.LT.ISUMPO)305,310
305 ISURPO=ISURP
KRM=KRM+1
310 CONTINUE
IF (KRM)330,312
312 NC REACHABLE AREAS--CHOOSE CLOSEST
DC 320 KRM=1,NRF
IF (DISTREF(KRM)-DISIC) 314,320,320
314 KRM=KRM+1
DISTO=DISTREF(KRM)
320 CONTINUE
330 IREFTK=KRM
ISPREF(KRM) = ISPREF(KRM) + 1
400 DISTO=DISTREF(IREFTK)
XL=HFLAT(IREFTK)
YL=HFLONG(IREFTK)
DEL = 0.0
HUT(1)=TINC(1)*DULXX(IAX)*DEL
IF (INITSTK.EQ.1)1,3
1 DC 450 IDIV=1,1000
IAREF=IARVLS(C,IDIV)
IF (IAREF) 450,450,410
410 IF (IAREF-IREFTK) 450,420,450
420 AHTIM=ARVLS(1,IDIV)
IARVLS(2,IDIV)=0
IATRA=0
430 DEL=AHTIM-DIST/SPEEDIK-.1
GC TO 460
450 CONTINUE

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AHTIM=ARTIME (LHFTK)
IATRA=IRFTK
GC TO 430
460 CONTINUE
3 HUT(1)=TINC(1)*UEL
KPL(2)=KPL(3)+INDP(2)+INDP(3)+INFTK
HLA(2)=HLA(3)+AL
HLC(2)=HLC(3)+YL
NUT=0
DC 520 KHE=1*NDPHEW
UC 519 KHC=1*4
NUT=NDST+1
IF (INDCAP(KH,KKC).EQ.V) 505,506
505 UI(NDST)=1E6
GC TO 519
506 DI(NDST)=DISTF(AL,YL,HCLAT(KH,KKC)+HCLBLN(KH,KKC))
519 CONTINUE
520 CONTINUE
CALL ORDER(U1,IRUH,NDST)
UC 525 KHE=1*4
ICAN(KN)=IRUK(KN)
INKR=ICAN(KN)/4 + 1
INKRC=ICAN(KN)-(4*(INKR-1))
I3PLKR=3*KR
TINC(I3PLKR)=HUT(I3PLKR)+UI(ICAN(KN))/SPEEDTK
HLA(I3PLKR)=HCLAT(INKR,INKRC)
HLC(I3PLKR)=HCLBLN(INKR,INKRC)
CALL IPUT(KEYOPEN,I3PLKR,INKR,KPL)
CALL IPUT(KEYVMA,I3PLKR,INKRC,KPL)
INDP(I3PLKR)=KPL(I3PLR)
525 CONTINUE
INDV=ICUTCLU=ISHTSY*1*1
IFT = HUT(2)+HUT(3)+HUT(4)
CMT(1)=HUT(1)
DC 606 NMJ=2*4
CMT(KM)=CMT(KM-1)+HUT(KMT)
606 NIKSRTYS=NTASKRTYS+1
602 NTANKREF(IRFTK)=NTANKREF(LHFTK)+1
GC TO (5,7,5,5),ICE
5 ITP=EVERTAPE
21WORD = 26
CALL WHHCHD
CALL WHHARAY (INDATA, 26)
CALL WHHARAY (TINC,MFL)
CALL WHHARAY (INDP,MFL)
CALL WHHARAY (INDE,MFL)
INF=IRFTK
CALL SNAPIT(3,2)
IF (IXTRA) 53,5,53
53 PRINT 535,IXTRA
535 FORMAT (21MUTANKER EXIRA AT AREA,15)
GC TO (10,7,7,10),ICE
7 WHITE(PLANTAPE) (LSIDE,MYGHQUP,MZERG,MZERG,MHT,(MZERG,I=1,12))
11TYPE,MZERG,JALENT,MZERG,MZERG,MHT,(MZERG,I=1,12))
WHITE (PLANTAPE) (HUT(1),KPL(1),JTP(1),HLA(1),HLC(1),CMT(1),I=1,MHT)

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220000  
221000

FTN5.5

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IF (NAP(2).EQ.3) 900,10
900 PRINT 901,LSIDE,MYGROUP,NTKSRTYS,INDEXTK,INDV,ITANKEM,ITYPE
1,IALERT,MHT
901 FORMAT(1X,5MSIDE,12,2X,5MGROUP,13,2X,7MTKCCUNT,15,2X,7HBASE,16,2X
1,5MVEHID,13,2X,5MCLASS,12,2X,6MS-TYPE,13,2X,6MIALERT,12,2X
2,7MNLINES,13,2X, /)
PRINT 902
902 FORMAT(4X,3MMDI,4X,3MKPL,2X,3MJTP,3X,3MKLA,5X,3MHLG,4X,3HCMT)
PRINT 903,(MUT(1),KPL(1),JTP(1),MLA(1),HLC(1),CAT(1),A=1,MHT)
903 FORMAT(1X,F7.2,F7.2,F7.2,F7.2,F7.2,F7.2)
10 CONTINUE
15 CONTINUE
20 CONTINUE
DO 25 IDIV=1,1000
1P (IARVLS(2,IDIV)) 23,25,23
23 PRINT 24, IARVLS(2,IDIV),ARVLS(1,IDIV)
24 FORMAT (52HPROGRAM ERROR,NO TANKER ASSIGNED TO NUMBER ARRIVING,
15M AT REFUEL AREA,16,7MAY TIME,F7.3)
25 CONTINUE
PRINT 990, NTKSRTYS
990 FORMAT(/10X,16,2X,22MTANKER PLANS PROCESSED )
RETURN
END

```

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8

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

PLANTANK

IDENT

| PLANTANK | IDENT |
|----------|-------|
| J2551    |       |
| J1040    |       |
| ARTIME   |       |
| CONTRL   |       |
| DINDATA  |       |
| DINDATA2 |       |
| REF      |       |
| EVENTS   |       |
| IGLASS   |       |
| INDATA   |       |
| ISUTGLU  |       |
| INF      |       |
| INFTK    |       |
| IIP      |       |
| KEYLENG  |       |
| KEYS     |       |
| MASTER   |       |
| MAX      |       |
| MYIDENT  |       |
| OUTSKI   |       |
| PLANTYPE |       |
| IC       |       |
| SNAPON   |       |
| TANKER   |       |
| FILES    |       |
| TWGRU    |       |
| 7        |       |
| 8        |       |
| 9        |       |

EXTERNAL SYMBOLS

THEND.  
Q3910040  
Q1010100  
GRUOICT.  
DISTF  
VAM  
CLINDATA  
SNAPCON  
GRUEN  
IPUT  
WHWCHU  
WHARHAY  
SNAPIT  
STM.  
STB.  
ONSINGL.









|                |       |       |       |       |             |
|----------------|-------|-------|-------|-------|-------------|
| P02526 IV      | 01147 | 01154 | 01303 | 01310 | 02372       |
| P02527 IM      | 01415 | 01767 | 02251 |       |             |
| C00132 IM      | 01252 | 01253 | 01254 | 01254 | 01255 01255 |
| C00412 IMYP    |       |       |       |       |             |
| P02530 ITRA    | 01614 | 01031 | 02047 | 02055 |             |
| P02531 IXX     | 01367 | 01410 | 01413 | 01566 | 02254       |
| P01047 .1000   | 01045 |       |       |       |             |
| P01312 .100    |       |       |       |       |             |
| P01574 .1      |       |       |       |       |             |
| P02251 .10     | 02063 | 02065 | 02164 |       |             |
| P01141 .1000C1 |       |       |       |       |             |
| P01144 .1000C2 | 01140 | 01140 |       |       |             |
| P01066 .1009   |       |       |       |       |             |
| P01102 .1010   |       |       |       |       |             |
| P01422 .101    | 01420 |       |       |       |             |
| P01120 .1020   | 01113 | 01116 |       |       |             |
| P01425 .102    | 01423 |       |       |       |             |
| P01125 .1025   | 01117 |       |       |       |             |
| P01437 .105    | 01420 | 01424 |       |       |             |
| P01447 .106    |       |       |       |       |             |
| P01453 .109    |       |       |       |       |             |
| P01460 .110    | 01445 | 01446 | 01452 |       |             |
| P01465 .115    | 01124 |       |       |       |             |
| P01146 .1170   |       |       |       |       |             |
| P01174 .1190   |       |       |       |       |             |
| P01176 .1200   |       |       |       |       |             |
| P01470 .120    | 01463 | 01463 |       |       |             |
| P01214 .1300   |       |       |       |       |             |
| P02254 .15     |       |       |       |       |             |
| P02256 .20     | 01436 |       |       |       |             |
| P02272 .23     | 02267 |       |       |       |             |
| P02302 .25     | 02267 |       |       |       |             |
| P01473 .300    | 01464 |       |       |       |             |
| P01636 .3      | 01573 |       |       |       |             |
| P01507 .303    | 01505 |       |       |       |             |
| P01513 .304    | 01511 | 01511 |       |       |             |
| P01520 .305    |       |       |       |       |             |
| P01523 .310    | 01506 | 01512 | 01517 | 01517 |             |
| P01527 .312    |       |       |       |       |             |
| P01543 .314    | 01541 |       |       |       |             |
| P01547 .320    | 01541 | 01542 |       |       |             |
| P01551 .330    | 01526 |       |       |       |             |
| P01556 .400    | 01421 | 01472 |       |       |             |
| P01603 .410    |       |       |       |       |             |
| P01607 .420    | 01603 |       |       |       |             |
| P01615 .430    | 01632 |       |       |       |             |
| P01622 .450    | 01602 |       |       |       |             |
| P01633 .460    | 01621 |       |       |       |             |
| P02020 .5      | 02015 | 02017 |       |       |             |
| P01670 .505    |       |       |       |       |             |
| P01673 .506    | 01667 |       |       |       |             |
| P01703 .519    | 01672 |       |       |       |             |
| P01704 .520    |       |       |       |       |             |
| P01764 .525    |       |       |       |       |             |

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|                  |       |       |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|-------|-------|
| PU2U51 .53       | 04050 |       |       |       |       |       |       |
| PU2U61 .6        | 02050 |       |       |       |       |       |       |
| PU2U06 .602      |       |       |       |       |       |       |       |
| PU2U02 .606      |       |       |       |       |       |       |       |
| PU2U66 .7        |       |       |       |       |       |       |       |
| PU1U46 .9        | 02016 | U2064 | U2065 |       |       |       |       |
| PU2165 .900      |       |       |       |       |       |       |       |
| PU2467 .ERASER   | 01725 | U1726 | 01727 | 01730 |       |       |       |
| PU0654 .100C00   | 01055 |       |       |       |       |       |       |
| PU0655 .103      | U1430 |       |       |       |       |       |       |
| PU0650 .2        | 01052 |       |       |       |       |       |       |
| PU1U05 .24       | 02273 |       |       |       |       |       |       |
| PU0671 .535      | 02054 |       |       |       |       |       |       |
| PU0700 .501      | 02170 |       |       |       |       |       |       |
| PU0750 .902      | 02217 |       |       |       |       |       |       |
| PU0774 .903      | 02225 |       |       |       |       |       |       |
| PU1U26 .990      | 02310 |       |       |       |       |       |       |
| PU2466 .NSTIFF   | 01734 | U1735 |       |       |       |       |       |
| PU1165 .200001   | 01157 | U1160 | 01162 |       |       |       |       |
| PU1700 .200002   | 01674 | U1675 |       |       |       |       |       |
| PU2532 J         | 01063 | U1132 | U1142 | 02344 |       |       |       |
| PU2533 J         | 01442 | U1443 | U1447 | U1460 | U1465 |       |       |
| CU0011 JFC TNC   | 01056 | U1056 |       |       |       |       |       |
| PU2534 JREFLT    | 01440 | U1440 |       |       |       |       |       |
| CU0264 JTP       | 01260 | U1260 | 01263 | 01266 | 01270 | 01271 | 01272 |
|                  | 02250 | U2236 |       |       |       |       |       |
| PU2535 KB        | 01477 | U1503 | 01521 | 01524 | 01532 | 01543 |       |
| PU2536 KBM       | 01474 | U1522 | 01525 | 01530 | 01544 | 01551 |       |
| CU0001 KEYBMX    | 01756 |       |       |       |       |       |       |
| CU0000 KEYDPEN   | 01751 |       |       |       |       |       |       |
| PU2537 KMT       | U2000 |       |       |       |       |       |       |
| CU0001 KKKO      |       |       |       |       |       |       |       |
| CU0132 KPL       | 01403 | U1403 | 01644 | 01645 | U1752 | 01757 | 02235 |
| PU2540 KR        | 01655 | U1704 | 01715 | 01717 | U1732 | U1764 |       |
| PU2541 KRC       | 01661 | U2433 |       |       |       |       |       |
| CU0013 LABORT    |       |       |       |       |       |       |       |
| CU0007 LANDHC    | 01267 | U1267 | 01272 | 01273 |       |       |       |
| CU0005 LANDASH   |       |       |       |       |       |       |       |
| CU0001 LALNB     | 01256 | U1256 |       |       |       |       |       |
| CU0006 LALNUCCY  |       |       |       |       |       |       |       |
| CU0000 LALNM     |       |       |       |       |       |       |       |
| CU0007 LDBL      |       |       |       |       |       |       |       |
| CU0002 LDN       |       |       |       |       |       |       |       |
| CU0006 LDPEN     | 01236 |       |       |       |       |       |       |
| CU0015 LEAVEREF  | 01264 | U1264 |       |       |       |       |       |
| CU0012 LEODCG    |       |       |       |       |       |       |       |
| CU0014 LENTEREF  |       |       |       |       |       |       |       |
| CU0002 LEREFUEL  | 01261 | U1261 |       |       |       |       |       |
| CU0001 LJN       |       |       |       |       |       |       |       |
| CU0003 LINC      |       |       |       |       |       |       |       |
| CU0005 LMIS      |       |       |       |       |       |       |       |
| CU0006 LMO       |       |       |       |       |       |       |       |
| CU0007 LNCBASE   |       |       |       |       |       |       |       |
| CU0004 LNCPLATIN |       |       |       |       |       |       |       |



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|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------------|
| C00044 | MZCNEPT  |       |       |       |       |       |       |       |             |
| C00045 | MZCNEB   |       |       |       |       |       |       |       |             |
| P02542 | NAL      | 01411 | 02252 |       |       |       |       |       |             |
| C00023 | NALERT   |       |       |       |       |       |       |       |             |
| C00005 | NALPTK   |       |       | 01357 | 01360 | 01362 | 01365 | 01365 |             |
| C00454 | NALRTNK  |       |       |       |       |       |       |       |             |
| C00000 | NAP      |       |       |       |       |       |       |       |             |
| C00016 | NASNTYPE |       |       |       |       |       |       |       |             |
| C00010 | NBNQRY   |       |       |       |       |       |       |       |             |
| C00063 | NBCHREF  | 01134 | 01135 | 01136 | 01137 | 01142 | 01143 | 01214 | 01504 01514 |
|        |          | 01515 |       |       |       |       |       |       |             |
| C00062 | NBUDREF  |       |       |       |       |       |       |       |             |
| C00022 | NCLASS   |       |       |       |       |       |       |       |             |
| C00020 | NCMS     |       |       |       |       |       |       |       |             |
| C00026 | NCNTRY   |       |       |       |       |       |       |       |             |
| C00021 | NCOMPLEX |       |       |       |       |       |       |       |             |
| C00504 | NCSRH    |       |       |       |       |       |       |       |             |
| C00025 | NCRTYPE  |       |       |       |       |       |       |       |             |
| C00005 | NCPEN    | 01706 | 01706 |       |       |       |       |       |             |
| P02543 | NCSY     | 01654 | 01664 | 01665 | 01671 | 01702 | 01713 |       |             |
| C00013 | NCRGUP   |       |       |       |       |       |       |       |             |
| C00013 | NMAP     |       |       |       |       |       |       |       |             |
| C00012 | NHAPC    |       |       |       |       |       |       |       |             |
| P00005 | NLXX     | 01361 | 01363 | 01411 |       |       |       |       |             |
| C00015 | NPAYLOAD |       |       |       |       |       |       |       |             |
| C01321 | NPL      | 01241 | 01242 |       |       |       |       |       |             |
| C00030 | NPLAN    | 01243 | 01243 |       |       |       |       |       |             |
| C00002 | NPLST    |       |       |       |       |       |       |       |             |
| C00004 | NPSONTK  | 01333 | 01333 | 01361 | 01362 |       |       |       |             |
| C00006 | NRECCVEH |       |       |       |       |       |       |       |             |
| C00007 | NREF     |       |       |       |       |       |       |       |             |
| C00011 | NREG     | 01151 | 01151 | 01203 | 01204 | 01305 | 01462 | 01500 | 01532       |
| C00001 | NRF      | 01533 |       |       |       |       |       |       |             |
| C00003 | NRPT     |       |       |       |       |       |       |       |             |
| C00476 | NSCL     | 01466 | 01466 |       |       |       |       |       |             |
| C00020 | NTANKBAS | 01044 | 01044 | 01200 | 01200 | 01202 | 02260 | 02260 |             |
| C00145 | NTANKREF | 02011 | 02011 | 02012 |       |       |       |       |             |
| C00024 | NTGTS    |       |       |       |       |       |       |       |             |
| C00360 | NTKPSGN  | 01122 | 01122 | 01135 | 01136 | 01332 | 01332 |       |             |
| P02544 | NTKSRTYS | 01220 | 02006 | 02007 | 02100 | 02175 | 02311 |       |             |
| C00014 | NTSTRASE |       |       |       |       |       |       |       |             |
| C00012 | NTYPE    |       |       |       |       |       |       |       |             |
| C00017 | NWHQTYPE |       |       |       |       |       |       |       |             |
| C00026 | ORLAT    |       |       |       |       |       |       |       |             |
| C00040 | CSLONG   |       |       |       |       |       |       |       |             |
| X00011 | ORDER    | 01710 |       |       |       |       |       |       |             |
| P02324 | P0000C-U | 02326 |       |       |       |       |       |       |             |
| P02336 | P0001-U  | 02341 |       |       |       |       |       |       |             |
| P02352 | P00002-U | 02354 |       |       |       |       |       |       |             |
| P02364 | P00003-U | 02367 |       |       |       |       |       |       |             |
| P02400 | P0001G-U | 02403 |       |       |       |       |       |       |             |
| P02413 | P0001-U  | 02415 |       |       |       |       |       |       |             |
| P02425 | P00012-U | 02430 |       |       |       |       |       |       |             |

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|                 |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C01166 PA       |       |       |       |       |       |       |       |       |       |
| P01040 PLANTANK | 01040 |       |       |       |       |       |       |       |       |
| C00017 PLANTAPE | 02066 | 02134 | 02134 |       |       |       |       |       |       |
| X00003 01010100 | 01171 |       |       |       |       |       |       |       |       |
| X00002 03010000 | 01100 |       |       |       |       |       |       |       |       |
| X00004 08001010 | 00000 |       |       |       |       |       |       |       |       |
| X00020 04010100 | 02315 |       |       |       |       |       |       |       |       |
| C00211 RANGE    |       |       |       |       |       |       |       |       |       |
| C00212 RANGERE  |       |       |       |       |       |       |       |       |       |
| C00142 RBASLCC  | 01450 |       |       |       |       |       |       |       |       |
| C00000 RBBLAT   | 01673 | 01743 | 01743 |       |       |       |       |       |       |
| C00310 RBBLCA   | 01674 | 01745 | 01745 |       |       |       |       |       |       |
| C00000 RECLAT   |       |       |       |       |       |       |       |       |       |
| C00062 RECLONG  |       |       |       |       |       |       |       |       |       |
| C00000 REFLAT   | 01160 | 01166 | 01561 | 01561 |       |       |       |       |       |
| C00062 REFLONG  | 01161 | 01166 | 01563 | 01563 |       |       |       |       |       |
| C00477 RMAX     | 01202 |       |       |       |       |       |       |       |       |
| C00220 RMODEC   |       |       |       |       |       |       |       |       |       |
| C00004 SCALE    |       |       |       |       |       |       |       |       |       |
| X00010 SNAPCON  | 01237 |       |       |       |       |       |       |       |       |
| X00015 SNAPIT   | 02044 |       |       |       |       |       |       |       |       |
| C00670 SOURCE   | 01102 |       |       |       |       |       |       |       |       |
| C00210 SPDHI    |       | 01103 | 01121 | 01121 | 01123 | 01123 |       |       |       |
| C00007 SPDHC    |       |       |       |       |       |       |       |       |       |
| C00207 SPDLC    |       |       |       |       |       |       |       |       |       |
| C00010 SPDLOC   |       |       |       |       |       |       |       |       |       |
| C00006 SPEEDTK  | 01337 | 01337 | 01616 | 01616 | 01637 | 01736 | 01736 |       |       |
| X00017 STB.     | 02070 | 02136 |       |       |       |       |       |       |       |
| X00016 STH.     | 01050 | 01426 | 02052 | 02166 | 02215 | 02223 | 02271 | 02306 |       |
| C00014 STRKFL   |       |       |       |       |       |       |       |       |       |
| C00172 SURVCUT  |       |       |       |       |       |       |       |       |       |
| C00013 TANKRNGE | 01351 | 01510 | 01510 |       |       |       |       |       |       |
| C00550 TANKSPD  | 01336 |       |       |       |       |       |       |       |       |
| P02545 TFT      | 01774 |       |       |       |       |       |       |       |       |
| C00000 TGTFILE  |       |       |       |       |       |       |       |       |       |
| X00001 THEND.   | 01053 | 01434 | 02057 | 02132 | 02161 | 02212 | 02220 | 02247 | 02312 |
| C00032 TINC     | 01377 | 01377 | 01567 | 01570 | 01634 | 01634 | 01640 | 01741 | 02033 |
| C00644 TKDLYALT | 01340 | 01340 |       |       |       |       |       |       |       |
| C00740 TKDLYAL  | 01342 | 01342 |       |       |       |       |       |       |       |
| C00001 TKLAT    | 01325 | 01325 | 01404 | 01404 |       |       |       |       |       |
| C00002 TKLONG   | 01327 | 01327 | 01406 | 01406 |       |       |       |       |       |
| C00074 TKRLAT   | 01156 | 01156 | 01324 | 01324 |       |       |       |       |       |
| C00170 TKRLONG  | 01157 | 01165 | 01326 | 01326 |       |       |       |       |       |
| C01034 TKTTOS   | 01344 | 01344 |       |       |       |       |       |       |       |
| C00010 TMAPALCC |       |       |       |       |       |       |       |       |       |
| C01750 TDF      |       |       |       |       |       |       |       |       |       |
| C01224 TRANGE   | 01350 |       |       |       |       |       |       |       |       |
| P01200 TS00004. | 01110 |       |       |       |       |       |       |       |       |
| P01176 TS00005. | 01152 |       |       |       |       |       |       |       |       |
| P02260 TS00007. | 01301 |       |       |       |       |       |       |       |       |
| P01321 TS00010. | 01306 |       |       |       |       |       |       |       |       |
| P02252 TS00012. | 01416 |       |       |       |       |       |       |       |       |
| P01486 TS00013. | 01442 |       |       |       |       |       |       |       |       |
| P01525 TS00014. | 01501 |       |       |       |       |       |       |       |       |



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|-----------------|-------|-------|----------|-------|
| P01551 TS00015. | 01534 |       |          |       |
| P01706 TS00017. | 01657 |       |          |       |
| P02157 TS00024. | 02143 |       |          |       |
| P02245 TS00025. | 02231 |       |          |       |
| P02546 TSURP    | 01441 |       |          |       |
| C00011 TTOS     | 01345 | 01376 | 01376    |       |
| C00000 TCRD     |       |       |          |       |
| C01034 T2N      |       |       |          |       |
| C00702 T2T      |       |       |          |       |
| P02330 UP00000. | 01061 | 01075 | 01212    | 02324 |
| P02343 UP00001. | 02331 | 02333 | 02335    |       |
| P02356 UP00002. | 01064 | 02337 | 02344    |       |
| P02371 UP00003. | 01107 | 01177 | 02352    | 02363 |
| P02405 UP00010. | 01150 | 01300 | 02357    | 02377 |
| P02417 UP00011. | 01576 | 02365 | 02372    | 02410 |
| P02432 UP00012. | 01656 | 02372 | 02401    | 02424 |
| P02442 UP00017. | 01662 | 01705 | 02413    |       |
| P02451 UP00020. | 01724 | 01716 | 02421    |       |
| X00006 VAM      | 01731 | 02426 | 02435    |       |
| X00014 WRARRY   | 01206 | 01753 | 02445    |       |
| X00013 WRRCRD   | 02026 | 01760 | 02452    |       |
| P01062 WS00001. | 02024 | 02031 | 02034    |       |
| P01066 WS00002. | 01073 |       |          |       |
| P01077 WS00003. | 01070 |       |          |       |
| P01111 WS00004. | 01104 |       |          |       |
| P01156 WS00005. | 01175 |       |          |       |
| P01214 WS00006. | 01217 |       |          |       |
| P01302 WS00007. | 02261 |       |          |       |
| P01312 WS00010. | 01320 |       |          |       |
| P01370 WS00011. | 02255 |       |          |       |
| P01417 WS00012. | 02253 |       |          |       |
| P01443 WS00013. | 01467 |       |          |       |
| P01504 WS00014. | 01550 |       |          |       |
| P01537 WS00015. | 01624 |       |          |       |
| P01577 WS00016. | 01707 |       |          |       |
| P01660 WS00017. | 01703 |       |          |       |
| P01664 WS00020. | 01766 |       |          |       |
| P01717 WS00021. | 02005 |       |          |       |
| P02002 WS00022. | 02131 |       |          |       |
| P02125 WS00023. | 02160 |       |          |       |
| P02144 WS00024. | 02246 |       |          |       |
| P02232 WS00025. | 02304 |       |          |       |
| P02265 WS00026. | 01562 |       |          |       |
| C00426 XD6Z     | 01564 |       |          |       |
| C00427 XL       |       |       |          |       |
| C00442 YD6Z     |       |       |          |       |
| P02550 YL       |       |       |          |       |
| C00456 ZD6Z     |       |       |          |       |

00717 SYMBOLS

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```

SUBROUTINE PLANTHIS
  PLANTHIS 18671E *****
  C      PROCESS MISSILE PLANS FROM STRKFILE
  CUSE    BLOCK 10FEB71 *****
  C      COMMON/BLOCK/ LOCK(320)
  C      DIMENSION BLOCK(320)
  C      EQUIVALENCE (LOCK: BLOCK)
  C      BLOCK *****
  C      CONTROL 20EC70 *****
  C      COMMON/CONTROL/ICE,LSIDE,NPLST,ISZ,SCALE
  C      CONTROL *****
  C      ITP *****
  C      COMMON/ITP/ITP *****
  C      ITP *****
  C      TWCRD 20EC70 *****
  C      COMMON/TWCRD/TWCRD,ITCRD
  C      EQUIVALENCE(ITCRD,TWCRD)
  C      TWCRD *****
  C      KEYLENG 20EC70 *****
  C      COMMON/KEYLENG/ LOS, LIN, LON, LINC, LTM, LMC, LDBL
  C      KEYLENG *****
  C      MAX 10FEB71 *****
  C      COMMON/ MAX/ MARRDEZ, MALERT, MASTYP, MENDRY, MCCREGN,
  C      1 MCLASS, MCNTRY, MCORR, MPAYLCO, MRECCVR,
  C      2 MRECVLG, MREF, MRTLEG, MTRCOL, MTRCPX,
  C      3 MPERM, MTANKS, MTRCLS, MTRSEC, MTRTEL,
  C      4 MTRHRS, MTRGET, MTRIND, MTRSEC, MTRTEL,
  C      5 MTRTYP, MTRVAL, MTRBAS,
  C      6 MTRTYP, MTRVAL, MTRBAS,
  C      7 MTRTYP, MTRVAL, MTRBAS,
  C      8 MTRTYP, MTRVAL, MTRBAS,
  C      MISC 20EC70 *****
  C      COMMON/ MISC/ MISC, MIANGC
  C      MISC *****
  C      OUTSRT *****
  C      COMMON/OUTSRT/OUTSRT
  C      1 MYGROUP, MYCORR, INDEY, IREF, IOPEN, IPAYLCO, LNCBSE, ILYP
  C      2 BLAT, BLONG, NHAP, IRTYPE(10), SBLAT(10), SBLONG(10), BLAT(10), BLONG(10)
  C      3 IREJEC(10), IREUS(10), IRTSK(10), IRTCTY(10), IRTFLG(10), IRTCTUT(10),
  C      4 SURVOUT(10), GCLCW1, GCLCW2, GCLCW3, SPDLQ,
  C      4 SPDNT, RANGE, RANGREF, JUELAY, INB, ILRT, IDCHBER, AVAILCH, HNGDEC
  C      /OUTSRT/ IS THE INPUT RECORD FROM STRKFILE
  C      OUTSRT *****
  C      EQUIVALENCE(OUTSRT, IUDM)
  C      DIMENSION IUDM(1)
  C      PAYLCO 20EC70 *****
  C      COMMON/PAYLCO/NGCHM1(40), IWD1(40), NGCHM2(40), IWD2(40)
  C      1 NASH(40), IASH(40), NCM(40), NDECCYS(40), NDECCYS(40), INIRV(40)
  C      PAYLCO *****
  C      SNAPCN 20EC70 *****
  C      COMMON/ SNAPCN/ NAP(15)
  C      SNAPCN *****
  C      FILES 10FEB71 *****
  C      COMMON/ FILES/ IGFILE(2), BASFILE(2), NSLTIME(2), ALCTAR(2),
  C      1000
  C      88000
  C      3000
  C      6000
  C      1000
  C      2000
  C      3000
  C      6000
  C      9000
  C      1000
  C      10000
  C      1000
  C      10000
  C      11000
  C      1000
  C      2000
  C      11000
  C      12000
  C      1000
  C      12000
  C      12500
  C      1000
  C      2000
  C      3000
  C      4000
  C      5000
  C      6000
  C      7000
  C      8000
  C      9000
  C      12500
  C      13000
  C      1000
  C      13000
  C      14000
  C      1000
  C      2000
  C      3000
  C      4000
  C      4500
  C      5000
  C      7000
  C      14000
  C      15000
  C      16000
  C      17000
  C      1000
  C      2000
  C      17000
  C      18000
  C      1000
  C      18000
  C      19000
  C      1000

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C      TMPALCC(2),ALCCGRP(2),STR(FIL(2),EVENTAPE,PLANTAPE
C      TYPE INTEGER (TOTFILE,BASFILE,ALCCGRP,TMPALCC,ALCCGRP,STRKFIL
C      TYPE INTEGER EVENTAPE,PLANTAPE
C      FILES
C      WPNRPRX 16FEB71 *****
C      COMMON /WPNRPRX/ ITYPEX(200),OBLX(200)
C      DIMENSION = KGROUP = MAX NUM WEAPON GROUPS
C      WPNRPRX *****
C      WPNRPRX 16FEB71 *****
C      COMMON /WPNRPRX/ REL(80),IHTYPE(80),IFNCIN(80)
C      DIMENSION = ATYPE = MAX NUM WEAPON TYPES
C      WPNRPRX *****
C      WPNRPRX 16FEB71 *****
C      COMMON /WPNRPRX/ ITIMETYP(40), CORNSLX(40), FLIMIN(40)
C      TYPE INTEGER (TOTFILE,BASFILE,ALCCGRP,TMPALCC,ALCCGRP,STRKFIL
C      TYPE LOGICAL IIMETYP
C      EQUIVALENCE (GRABE,MSLFIL(1)),(INDEXSAVE,MSLFIL(2))
C      EQUIVALENCE (TIMESAVE,MSLFIL(5))
C      DIMENSION ITDATA(252)
C      EQUIVALENCE (TDATA,ITDATA)
C      DATA (NLINES = 0), (CORCHK = 32400.), (GOLD = 0)
C      DATA (TWGPI = 9.283185307), (CR = 0.01745359252)
C      TIMELINE *****
C      CUSE 16FEB71 *****
C      COMMON /NAVAL/ NNAVAL,IUBL(200),PKNAV(200),ISVX(6),LSI08L85
C      DATA (LSTUBL85 = 0)
C      C
C      C      NAVAL *****
C      CUSE 16FEB71 *****
C      COMMON /MRVFLG/ MRVFLG
C      CUSE 16FEB71 *****
C      DATA (NRECPLAN = 0)
C      DATA (NRECPLAN = 0)
C      DIMENSION INCB(18)
C      DATA (INCB=18(0))
C      MOVE OUTSRT RECDND TO LOCK ARRAY
C      PUNCH CLOCK
C      CALL TIME(3)
C      5 DC 10 I=1,LS
C      10 LOCK(I)=IDUM(I)
C      IF (LOCK(I) .EQ. 1) GO TO 15
C      PRINT 13
C      13 FORMAT (48MSTNKFILE RECDND NEITHER BOMBER NOR MISSILE PLAN )
C      CALL ABORT
C      15 CONTINUE
C      IGROUPIN = LOCK(3)
C      I0BLTEST = I0BL(I0BLGRPIN)
C      READ BALANCE OF MISSILE RECDND

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```

L = LMS-LQS
ITP=STKFL(1)
CALL RDARRAY(LOCK(LOS+1),L)
INCREMENT COUNT OF NO OF MISSILE RECORDS
N=LOCK(17)
NT=LOCK(18)
MISCT = MISCTON
MTARGET = MTARGET + NI
SEE IF THIS IS A NEW GROUP WITH FIXED WEAPONS - IF SO READ DATA
C
C
C
IF (LOCK(3) .EQ. GSAVE) 2100, 2800
2100 GCLD = GSAVE
ITP=SLTIME(1)
DC 2200 J=1,1000
TIME(J) = TIMESAVE
INDEX(J) = INDEXSAVE
CALL RDARRAY(MSLFIL,5)
IF (LOCK(3)-GSAVE) 2101,2200,2101
2101 IF (GSAVE=1000) 2101,2200,2101
2103 GSAVE=1000
GO TO 2300
2200 CONTINUE
C
C
C
MORE THAN 1000 WEAPONS FIXED THIS GROUP
NFIWPS = NLEFT = 1000
2201 CALL RDARRAY(MSLFIL,5)
IF (GSAVE=999) 2203,2400,2203
2203 IF (LOCK(3) .EQ. GSAVE) 2201, 2800
2204 GSAVE = 1000
GO TO 2800
2300 NFIWPS = NLEFT = J
C
C
C
LOAD TARGET ARRAY AND CLEAN BLOCK ARRAY
DC 2800 J = 1, 90
ITDATA(J) = LOCK(J+18)
ITDATA(J+90) = LOCK(J+108)
LOCK(J+18) = LOCK(J+108) = MZERO
DC 2902 J=1,72
2902 ITDATA(J+180)=LOCK(J+198)
IPAY=LOCK(5)
IF (IMIRV(IPAY)) MRYFLG=1
CALL TIMEINCH
LOCK(18) = LOCK(17) = 1
NNN = N
S
N = 1
GO TO (40,20,20,90),I,C
20 IGN=LOCK(3)
IF (IGN=IGN - MGRUP+MGRUP) 19,18,19
19 IGN=0 $ INDEX=0 $ REL=0 $ GO TO 17
18 CONTINUE
INDEX=ITYPEX(IUN)
REL=REL(INDEX)+DBLX(IGN)
17 IMH=IMH0(IPAY)
IMHTYPE=IMHTYPE(INDEX)

```

```

C      WRITE DETAILED PLAN ON PLANTAPE
      MVTST=0
      MVTST2=0
      DC 25 J=1,NT
      NRECPLAN = NRECPLAN + 1
      BLOCK(4) = (MUNCH(J)
      MSUB=BLOCK(9)
      IF (MVTST.EQ. ITDATA(J)) GO TO 170
      FIND NUM TOTS ASSIGNED TO THIS MISSILE INDEX(MIRV)
      LIM=(18-J)*I
      DC 172 ATARG=1,LIP
      NEWSLSJ=NTARG
      IF (ITDATA(J)-ITDATA(MEWSLS)) 171,172,173
      171 GO TO 173
      2 CONTINUE
      3 CONTINUE
      WRITE (PLANTAPE) (BLOCK(1),IGN,MZERG,NRECPLAN,MZERG,MZERG,BLOCK(10),
      BLOCK(9),BLOCK(11),BLOCK(12),IPAY,MZERG,BLOCK(18),BLOCK(4),MZERG,
      ZI=1,6),IMTYP,INDEX,IFUNCT(MSUB),MZERG)
      ADD IN TARGET OFF SETS
      170 BLOCK(163)=ITDATA(144+J)*TUATA(J*54)
      BLOCK(181)=TUATA(162+J)*TUATA(72+J)
      BLOCK(109)=ITUATA(90+J)
      BLOCK(37) = ITUATA(18+J)
      BLOCK(19) = ITUATA(J)
      BLOCK(127)=TUATA(108+J)
      BLOCK(145)=TUATA(124+J)
      BLOCK(55) = ITUATA(36+J)
      BLOCK(199)=ITUATA(180+J)
      BLOCK(217)=ITUATA(198+J)
      MVTST = BLOCK(19)
      BLOCK(235)=ITUATA(216+J)
      BLOCK(253)=ITUATA(234+J)
      WRITE (PLANTAPE) BLOCK(109),BLOCK(37),BLOCK(19),BLOCK(163),
      1 BLOCK(181),BLOCK(127),BLOCK(145),IMD,RELI,BLOCK(55),
      2 BLOCK(199),BLOCK(217),BLOCK(235),BLOCK(253)
      IF (MVTST2.EQ. BLOCK(19)) GO TO 222
      211 IF (MVTST2.EQ. BLOCK(19)) GO TO 222
      21 PRINT2,BLOCK(1),IGN,MISCT,BLOCK(10),BLOCK(9),BLOCK(11),BLOCK(12)
      1,BLOCK(5),BLOCK(18),BLOCK(4),INDEX,IMTYP,IFUNCT(MSUB)
      22 FORMAT(1X,4HSHUE,12,2X,5HGRUP,13,2X,6HMCOUNT,15,2X,5HCLASS,12,2X
      1,4HTYPE,13,2X,3HREG,13,2X,6HIALEKI,12,2X,7HPAYLCAQ,13, /1X
      2,7HNM,MISS,13,2X,6HNI,14X,13,2X,6HTWLAUN,F6.2,2X,6HPUITYE,13,2X
      3,9HTYPE NAME,1X,48,1X,8HFUNCTION,1X,48 /)
      222 PRINT 23
      23 FORMAT(3X,7HMISSILE, 9X,4HMSITE,17X,6HTARGET,10X,6HFLIGHT, /
      1,3X,SHINDEK,4X,5HMINDEA,2X,4HPLAT,2X,5HLCNG,3X,5HINDEX,3X
      2,4HPLAT,4X,5HLCNG,3X,4HTIME,5X,5HSHOESIG,2X,3HYSK,1X,5HCONTNY,2X,
      3 1HF)
      PRINT 24, BLOCK(19),BLOCK(37),BLOCK(127),BLOCK(145),BLOCK(55),
      1 BLOCK(163),BLOCK(181),BLOCK(109),BLOCK(199),BLOCK(217),BLOCK(235),
      2 BLOCK(253)
      24 FORMAT(4X,14,3X,16,F6.1,F7.1,2X,16,F7.1,F9.1,F8.3,4X,AS,3X,A2,
      * 3X,A2,3X,A1)
      27 GO TO (250,26,250),ICL

```

```

26 CALL SNAPIT(15,3)
250 WRVSTC=LCK(19)
25 CONTINUE
30 GO TO (40,60,80),ICE
C CLEAR OUT TAC END OF PLAN
40 L=LMQ+1
49 LCK(13)=LCK(17)
DC 50 L=L+LIN
50 LCK(1)=0
LCK(3)=0
C CONVERT ALIST,VLST TO F.P. N. M50
DC 55 L=LN
IDATA(I+72) = 3000.*IDATA(I+72)*COSF(IDATA(I+54)/ST.2957795)
IDATA(I+54) = 3000. * IDATA(I+54)
55 CONTINUE
IIGT=0
DC 65 J = 1, NNN
LCK(14)=IMLNC(IIGT+1)
DC 66 KK=L+J-1, L
66 LCK(14+KK)=IDATA(KK+IIGT)
IS = IIGT + 1
MISSDEK = IDATA(IS)
DC 63 I = IS + NT
IF (IDATA(I) - MISSDEK) 64, 63, 64
63 CONTINUE
I = NT + 1
64 NIPM = I - IS
LCK(8) = NIPM
LCK(14) = NIPM * 2
DC 660 I=L+NTPM
IIGT=IIGT+1
K=50-2*I-1 $ KK=K+1
NDEC=NDECYS(IPAY) $ NADEC=NADECYS(IPAY)
IDATA(IDATA(54)+IIGT).AND.77778
IDLONG=IDATA(12+IIGT).AND.77778
LCK(K)=IDATA(36+IIGT)*2+33 + IDLATE+2+21 + IDLNG+2+9 +
1 INCB(IIGT)*2+6 + NADEC*2+3 + NDEC
660 LCK(KK)=IDATA(10+IIGT)
AND WRITE IF ON EVENTAPE
IF ((IDBLTEST.GT. 0) .AND. (LCK(2) .NE. LSTOULB5)) 70, 73
70 LSTOULB5 = LCK(2)
DC 71 I = 1, 6
J = I + 2
ISVX(I) = LCK(I)
71 LCK(J) = 0
LCK(3) = IDBLTEST
LCK(7) = SNAVAL
ITP = EVENTAPE
ITWDR = LDBL
CALL WRWRD
CALL WRWRAY(LCK, LDBL)
DC 72 I = 1, 6
72 LCK(I+2) = ISVX(I)
73 LCK(6) = PMAY(IGROUPIN)
ITP = EVENTAPE
ITWDR = 14

```

122000  
122500  
123000  
124000  
125000  
126000  
127000  
128000  
129000  
130000  
131000  
132000  
133000  
134000  
135000  
136000  
137000  
138000  
139000  
140000  
141000  
142000  
143000  
144000  
145000  
146000  
147000  
148000  
149000  
150000  
151000  
152000  
153000  
154000  
155000  
156000  
157000  
158000  
159000  
160000  
161000  
162000  
163000  
164000  
165000  
166000  
167000  
168000  
169000  
170000  
171000  
172000  
173000  
174000  
175000

F145.5

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```

CALL WNRCHD
CALL WNRARRAY (LOCK, 1*)
NCRDS = LOCK(13)
CALL WNRARRAY (LOCK(15), NCRDS)
CALL WNRARRAY (LOCK(33), NCRDS)
NCRDS = LOCK(14)
CALL WNRARRAY (LOCK(51), NCRDS)
CALL SNAPIT(15,2)
65 CONTINUE
C READ IN NEXT RECORD
GO ITP=STKPFIL(1)
CALL RDARRAY(IOUTSRT,LOS)
IS IT A BOMBER PLAN
105 IF (I08CDBER.EQ.DBCHMBEN) 110,5
110 CALL TIMEE(2)
RETURN
END

```

174600  
174800  
175000  
175200  
175400  
175600  
175800  
180000  
181000  
182000  
183000  
183500  
184000  
185000  
186000  
187000  
188000

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IDENT PLANTMIS

| PROGRAM LENGTH<br>ENTRY POINTS<br>BLOCK NAMES | PLANTAIS |       |
|-----------------------------------------------|----------|-------|
|                                               | BLOCK    | VJ502 |
|                                               | CONTROL  | VJ054 |
|                                               | IIP      | V0500 |
|                                               | KEYLEN   | V0005 |
|                                               | MAX      | V0001 |
|                                               | MISC1    | V0010 |
|                                               | CUTSM    | V0047 |
|                                               | PAYLGRU  | V0002 |
|                                               | SWAPCN   | V0221 |
|                                               | FILES    | V0620 |
|                                               | WPNGNPX  | V0017 |
|                                               | WPNTPX   | V0020 |
|                                               | TIMELINE | V0620 |
|                                               | NAVAL    | V0360 |
|                                               | NAVFLG   | V5411 |
|                                               |          | V0630 |
|                                               |          | V0001 |

EXTERNAL SYMBOLS

|          |  |
|----------|--|
| THEND.   |  |
| Q101000  |  |
| Q2407000 |  |
| Q000100  |  |
| TIME     |  |
| ARCHI    |  |
| RDAMAY   |  |
| TIMEINCH |  |
| SNAPIT   |  |
| WNRCHD   |  |
| WNRHNY   |  |
| CCSF     |  |
| SH.      |  |
| SIR.     |  |
| QNSINGL. |  |







PLANTMIS

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|        |          |       |       |       |       |       |
|--------|----------|-------|-------|-------|-------|-------|
| P00517 | .100006  | Q0515 |       |       |       |       |
| P00743 | .100007  |       |       |       |       |       |
| P00744 | .100008  | Q0742 |       |       |       |       |
| P01401 | .105     |       |       |       |       |       |
| P01404 | .110     |       |       |       |       |       |
| P00307 | .15      | Q0276 |       |       |       |       |
| P00475 | .17      | Q0465 |       |       |       |       |
| P00607 | .170     | Q0516 |       |       |       |       |
| P00533 | .171     | Q0532 |       |       |       |       |
| P00536 | .172     | Q0531 |       |       |       |       |
| P00541 | .173     | Q0535 |       |       |       |       |
| P00456 | .18      | Q0460 |       |       |       |       |
| P00452 | .19      |       | Q0461 |       |       |       |
| P00453 | .20      |       | Q0451 |       |       |       |
| P00342 | .2100    |       |       |       |       |       |
| P00744 | .21      |       |       |       |       |       |
| P00361 | .2101    | Q0360 |       |       |       |       |
| P00364 | .2103    | Q0362 |       |       |       |       |
| P00740 | .211     |       |       |       |       |       |
| P00366 | .2200    | Q0360 |       |       |       |       |
| P00372 | .2201    | Q0402 |       |       |       |       |
| P00400 | .2203    | Q0377 |       |       |       |       |
| P00403 | .2204    | Q0376 |       |       |       |       |
| P01000 | .222     | Q0743 |       |       |       |       |
| P00405 | .2300    | Q0363 | Q0365 |       |       |       |
| P01040 | .250     | C1033 | Q1034 |       |       |       |
| P01042 | .25      |       |       |       |       |       |
| P01035 | .26      | Q1034 |       |       |       |       |
| P01031 | .27      | Q0737 |       |       |       |       |
| P00410 | .2800    | Q0341 | Q0402 | Q0404 |       |       |
| P00417 | .2900    |       |       |       |       |       |
| P00425 | .2902    |       |       |       |       |       |
| P01045 | .30      |       |       |       |       |       |
| P01051 | .40      | Q0450 | Q0452 | Q1047 |       |       |
| P01054 | .49      |       |       |       |       |       |
| P00263 | .5       | Q1403 |       |       |       |       |
| P01063 | .50      |       |       |       |       |       |
| P01111 | .55      |       |       |       |       |       |
| P01374 | .60      | Q1050 |       |       |       |       |
| P01147 | .63      | Q1145 |       |       |       |       |
| P01154 | .64      |       | Q1146 |       |       |       |
| P01371 | .65      |       |       |       |       |       |
| P01122 | .66      |       |       |       |       |       |
| P01256 | .660     |       |       |       |       |       |
| P01274 | .70      |       |       |       |       |       |
| P01306 | .71      |       |       |       |       |       |
| P01332 | .72      |       |       |       |       |       |
| P01335 | .73      |       |       |       |       |       |
| P01422 | .ERASER. |       |       |       |       |       |
| P00452 | ..100000 | Q1267 | Q1270 | Q1273 |       |       |
| P00253 | ..100001 | Q0455 | Q0460 | Q0520 |       |       |
| P00032 | ..13     | Q1240 | Q1242 | Q1243 |       |       |
|        |          | Q1251 | Q1252 | Q1253 |       |       |
|        |          | Q1314 |       |       |       |       |
|        |          | Q1402 |       |       |       |       |
|        |          | Q0302 |       |       |       |       |
|        |          |       | Q1076 | Q1221 | Q1226 | Q1233 |
|        |          |       | Q1244 | Q1245 | Q1246 | Q1246 |
|        |          |       |       |       |       | Q1235 |
|        |          |       |       |       |       | Q1235 |
|        |          |       |       |       |       | Q1250 |
|        |          |       |       |       |       | Q1251 |



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00444 21312

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## 5.4TS PLANTNIS

| 5.4TS  | PLANTNIS | 11/24/71 | ED | 0 | PAGE NO. | 13 |
|--------|----------|----------|----|---|----------|----|
| C00002 | NPL0T    |          |    |   |          |    |
| P00030 | NRECPLAN |          |    |   |          |    |
| P01475 | NT       |          |    |   |          |    |
| P01476 | NTARG    |          |    |   |          |    |
| P01477 | NTPM     |          |    |   |          |    |
| P01500 | NCR05    |          |    |   |          |    |
| C00026 | CBLAT    |          |    |   |          |    |
| C00040 | CBL0NG   |          |    |   |          |    |
| C00011 | PRNAV    |          |    |   |          |    |
| C00017 | PLANTAPE |          |    |   |          |    |
| P00254 | PLANTPIS |          |    |   |          |    |
| X00002 | Q1010100 |          |    |   |          |    |
| X00003 | Q2007000 |          |    |   |          |    |
| X00004 | Q8000101 |          |    |   |          |    |
| X00017 | QNSINGL  |          |    |   |          |    |
| C00211 | RANGE    |          |    |   |          |    |
| C00212 | RANGREF  |          |    |   |          |    |
| X00007 | RDARHAY  |          |    |   |          |    |
| C00000 | REL      |          |    |   |          |    |
| P01501 | REL1     |          |    |   |          |    |
| C00220 | RNGDEC   |          |    |   |          |    |
| C00004 | SCALE    |          |    |   |          |    |
| X00011 | SNAPIT   |          |    |   |          |    |
| C00210 | SPDH1    |          |    |   |          |    |
| C00207 | SPDLC    |          |    |   |          |    |
| X00016 | STB      |          |    |   |          |    |
| X00015 | STH      |          |    |   |          |    |
| C00014 | STRKFL   |          |    |   |          |    |
| C00172 | SURVCT   |          |    |   |          |    |
| C04042 | TDATA    |          |    |   |          |    |
| C00000 | TGFILE   |          |    |   |          |    |
| X00001 | THERD    |          |    |   |          |    |
| C02072 | TIME     |          |    |   |          |    |
| X00010 | TIMELACH |          |    |   |          |    |
| X00005 | TIMEME   |          |    |   |          |    |
| C05310 | TIMESAVE |          |    |   |          |    |
| C05256 | TPLNCH   |          |    |   |          |    |
| C00010 | TMPALCC  |          |    |   |          |    |
| P00274 | T5000C1  |          |    |   |          |    |
| P01043 | T5000C5  |          |    |   |          |    |
| P00537 | T5000C9  |          |    |   |          |    |
| P01066 | T500010  |          |    |   |          |    |
| P01112 | T500011  |          |    |   |          |    |
| P01372 | T500012  |          |    |   |          |    |
| P01150 | T500014  |          |    |   |          |    |
| P01266 | T500015  |          |    |   |          |    |
| P00026 | TWCPI    |          |    |   |          |    |
| C00000 | TWCRD    |          |    |   |          |    |
| X00013 | WHARHAY  |          |    |   |          |    |
| X00012 | WRWCRD   |          |    |   |          |    |
| P00271 | W5000C1  |          |    |   |          |    |
| P00347 | W5000C2  |          |    |   |          |    |
| P00413 | W5000C3  |          |    |   |          |    |

DATA PLANKS

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|               |          |       |       |
|---------------|----------|-------|-------|
| PU0425        | WS00004. | Q0427 |       |
| PU0506        | WS00005. | Q1044 | Q1044 |
| PU0524        | WS00006. | Q0540 | Q0540 |
| PU0573        | WS00007. | Q0576 |       |
| PU1763        | WS00010. | Q1055 |       |
| PU1074        | WS00011. | Q1111 |       |
| PU1115        | WS00012. | Q1373 | Q1373 |
| PU1122        | WS00013. | Q1133 |       |
| PU1142        | WS00014. | Q1151 | Q1151 |
| PU1166        | WS00015. | Q1205 |       |
| PU1301        | WS00016. | Q1312 |       |
| PU1332        | WS00017. | Q1334 |       |
| CU4746        | XC       |       |       |
| CU5030        | YC       |       |       |
| CU5112        | ZC       |       |       |
| CU4436        | ZLAT     |       |       |
| CU4602        | ZLONG    |       |       |
| Q0462 SYMBOLS |          |       |       |





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SATS POST

PROGRAM LENGTH-  
ENTRY POINTS

POST  
POST15  
POST17  
POST14  
POST13  
POST8

BLOCK NAMES

DINDATA  
EVENTS  
FILES

EXTERNAL SYMBOLS  
QUADICT.

IDENT POST

U0133  
U0003  
U0032  
U0037  
U0010  
U0050  
U0021

U1322  
U0020  
U0020

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PCSI

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|                 |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| PU0003 A        | UU061 |       |       |       |       |       |       |       |       |
| CU0012 ALDCGRP  |       |       |       |       |       |       |       |       |       |
| CU0006 ALCCITAR |       |       |       |       |       |       |       |       |       |
| PU0003 B        | UU064 |       |       |       |       |       |       |       |       |
| CU0002 BASFILE  |       |       |       |       |       |       |       |       |       |
| PU0071 BEGIN.   | UU15  | 00127 | UU034 | UU041 | UU052 | 00074 | 00075 |       |       |
| PU0001 DICT.    | UU005 | UU023 | UU035 | UU042 | UU053 | 00070 | 00071 |       |       |
| PU0116 ENDING.  | UU006 | UU024 |       |       |       |       |       |       |       |
|                 | UU073 |       |       |       |       |       |       |       |       |
| CU0016 EVENTAPE |       |       |       |       |       |       |       |       |       |
| PU0000 EXIT.    | UU121 |       |       |       |       |       |       |       |       |
| PU0061 FP000C1. | UU104 |       |       |       |       |       |       |       |       |
| PU0063 FP000C2. | UU110 |       |       |       |       |       |       |       |       |
| PU0065 FP000C3. | UU113 |       |       |       |       |       |       |       |       |
| PU0132 GETPL.   | UU076 |       |       |       |       |       |       |       |       |
| PU0122 GETPU.   | UU101 | UU126 |       |       |       |       |       |       |       |
| CU0000 HDT      |       |       |       |       |       |       |       |       |       |
| CU0416 MLA      | UU063 |       |       |       |       |       |       |       |       |
| CU0550 MLC      | UU064 |       |       |       |       |       |       |       |       |
| PU0003 I        | UU066 |       |       |       |       |       |       |       |       |
| CU0016 IGCHI    |       |       |       |       |       |       |       |       |       |
| CU0017 ISOLCH   |       |       |       |       |       |       |       |       |       |
| PU0071 INITIAL. | UU006 | UU024 | UU035 | UU042 | UU053 |       |       |       |       |
| CU0003 INSECTCH | UU056 |       |       |       |       |       |       |       |       |
| PU0061 100      | UU020 | UU047 |       |       |       |       |       |       |       |
| PU0070 110      | UU036 |       |       |       |       |       |       |       |       |
| CU0026 JTP      | UU020 | UU047 | UU060 |       |       |       |       |       |       |
| CU0132 KPL      | UU067 |       |       |       |       |       |       |       |       |
| CU0013 LABOMT   |       |       |       |       |       |       |       |       |       |
| CU0007 LANDHC   |       |       |       |       |       |       |       |       |       |
| CU0005 LAUNASH  |       |       |       |       |       |       |       |       |       |
| CU0001 LAUNB    |       |       |       |       |       |       |       |       |       |
| CU0006 LAUNOCY  |       |       |       |       |       |       |       |       |       |
| CU0000 LAUNM    |       |       |       |       |       |       |       |       |       |
| CU0015 LEAVEREF |       |       |       |       |       |       |       |       |       |
| CU0012 LEGDCG   |       |       |       |       |       |       |       |       |       |
| CU0014 LENTEREF |       |       |       |       |       |       |       |       |       |
| CU0002 LEREFUEL | UU16  |       |       |       |       |       |       |       |       |
| CU0004 LCCLATTN | UU027 |       |       |       |       |       |       |       |       |
| CU0010 LCHI     | UU045 |       |       |       |       |       |       |       |       |
| CU1320 M        | UU014 | UU015 | UU017 | UU017 | UU025 | 00025 | 00026 | 00030 | 00043 |
|                 | UU043 | UU046 | UU046 | UU054 | UU054 | 00055 | 00057 | 00062 | 00062 |
| CU1320 MMT      |       |       |       |       |       |       |       |       |       |
| CU0011 MISSATTN |       |       |       |       |       |       |       |       |       |
| CU0004 MSLTIME  |       |       |       |       |       |       |       |       |       |
| CU1321 NPL      |       |       |       |       |       |       |       |       |       |
| CU1160 PA       |       |       |       |       |       |       |       |       |       |
| PU0105 PF00002. | UU102 |       |       |       |       |       |       |       |       |
| PU0111 PF000C3. | UU106 |       |       |       |       |       |       |       |       |
| PU0115 PF00004. | UU112 |       |       |       |       |       |       |       |       |
| CU0017 PLANTAPE |       |       |       |       |       |       |       |       |       |
| PU0003 POST     | UU003 |       |       |       |       |       |       |       |       |
| PU0032 POST15   | UU032 |       |       |       |       |       |       |       |       |
| PU0037 POST17   | UU037 |       |       |       |       |       |       |       |       |

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5..TS

POST

PU0010 POST4  
PU0050 POST5  
PU0021 POST6  
X00001 Q8QDICT.  
CU0014 STAKFIL  
CU0000 TGTFILE  
CU0010 TAPALCC  
CU1034 TZN  
CU0702 TZT  
CU0075 SYMBOLS

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SUBROUTINE POSTLAUN(LPR,LMT,LUST)
  CSUBR  PCSTLAUN 4DEC70 *****
  CUSE   1 4DEC70 *****
  COMMON/1/DELUIS(6),LPXICRTY(20),LMT(90),NDCYRG(20),NPSLN,
  *NUMDCYS *****
  CENU   1 *****
        NPSLN = NPSLN+1
        LPXICRTY(NPSLN) = LPM
        LMT(NPSLN) = LMT
        NDCYRG(NPSLN) = LDST
        RETURN
        END
1000
90000
2000
1000
2000
2000
3000
4000
5000
6000
7000
8000

```

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5.4TS POSTLAUN

IDENT POSTLAUN

00062

00003

00212

PROGRAM LENGTH POSTLAUN

ENTRY POINTS

BLOCK NAMES

EXTERNAL SYMBOLS

1

00001CT.

5.415 POSTLAUN

PU0020 BEGIN.  
 CU0000 DELDIS  
 PU0001 DICT.  
 PU0045 ENDING.  
 PU0000 EXIT.  
 PU0011 FPO00C1.  
 PU0013 FPO00C2.  
 PU0015 FPO00C3.  
 PU0061 GETPL.  
 PU0051 GETPU.  
 PU0020 INITIAL.  
 PU0003 LDI  
 PU0003 LMT  
 CU0032 LMT  
 PU0003 LPR  
 CU0006 LPRICITY  
 CU0014 MDCYAC  
 CU0020 NPSLN  
 CU0021 NUMDCOTS  
 PU0034 PF00002.  
 PU0040 PF00003.  
 PU0044 PF00004.  
 PU0003 POSTLAUN  
 X00001 0800DICT.  
 00030 SYMBCL5

00044 00052 00056  
 00005 00023 00024  
 00006 00017 00020  
 00052 00033 00022 00022  
 00032 00037 00021 00021 00022 00022  
 00036 00043 00025 00034  
 00042 00025 00040 00055  
 00016 00006 00030  
 00014 00016 00015  
 00011 00017 00010 00012 00012  
 00013 00016 00007  
 00007 00031  
 00035 00041  
 00003 00000  
 00004

```

CSUBH      SUBROUTINE PHNTAB
CUSE       PRINTAB  ZUECTO *****
          ARTIME  5FEB71 *****
          COMMON/ANTIME/ANTIME(50),NBUDREF,NBCHREF(50),NTANKREF(50),
          *      IARVLS(2,1000),ARVLS(2,1000)
          EQUIVALENCE (IARVLS,ARVLS)
          ARTIME *****
          REF      ZUECTO *****
          COMMON/REF/NFLAT(50),NPLONG(50)
          REF *****
          IRF      ZUECTO *****
          COMMON/IRF/INF,NMF *****
          IRF *****
          MASTER  16FEB71 *****
          COMMON/MASTER/INDATE,IDENTNO,ISIDE,NRTPT,NCORR,NOPEN,NHCOVER
          1,NREF,NBNDRY,NREG,NTYPE,NRCUP,NTOTBASE,NPAYLOAD,NASMTYPE,NMMDTYPE
          2,NTANKBAS,NCOMPLEX,NCLASS,NALERT,NTOTS,NCRTYPE,NCNTRY
          MASTER *****
          DATA(NBUDREF=0)
          PRINT 1
          FORMAT(1H1,21X,23HTANKEN ALLOCATION TABLE)
          PRINT 2
          FORMAT(1//1X,11HREFUEL AREA,6X,7HTIME OF,5X,9HNUMBER OF,5X,
          * 9HNUMBER OF,6X,7HSURPLUS,5X,8HPLATITUDE,5X,9HLONGITUDE)
          PRINT 3
          FORMAT(18X,8HEARLIEST,5X,7HTANKERS,7X,7HNOCHBERS)
          PRINT 7
          FORMAT(18X,7THANRIVAL,5X,8HASSIGNED,6X,8HASSIGNED)
          J=1
          K=NRREF
          LS=1
          10      CONTINUE
          PRINT 4
          4        FORMAT(//)
          DO 5 I=J,K
            ISURP=NTANKREF(I)-NBCHREF(I)
            LAT=LATCV(REFLAT(I))
            LON=LONCV(REFLONG(I))
            PRINT 6,I,ANTIME(I),NTANKREF(I),NBCHREF(I),ISURP,LAT,LON
          6        FORMAT(5X,I3,10X,F7.3,7X,I3,13,11X,I3,3X,2(5XAB))
          5        CONTINUE
          GO TO (11,12)LS=
          11        J=NRREF+1
          LS=2
          GO TO 10
          12        PRINT 15,NBUDREF
          15        FORMAT(//27H NUMBER OF BUDDY TANKERS = ,I3)
          RETURN
          END

```

5.4TS PHNTAB

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PHNTAB

IDENT

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

U0302

U0133

U4147

U0144

U0002

U0027

PHNTAB

ARTIME

REF

INF

MASTER

EXTERNAL SYMBOLS

THEND.

QWQDICT.

LATCH

LONCV

STM.

ONSINGL.



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PHNTAB

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4

C00004 NCORN  
 C00025 NCORTYPE  
 C00005 NOPEN  
 C00013 NGRUP  
 C00015 NPAYLCAD  
 C00006 NRECOVER  
 C00007 NREF  
 C00011 NREG  
 C00001 NRF  
 C00003 NRPT  
 C00020 NTANKBAS  
 C00145 NTANKREF  
 C00024 NTGTS  
 C00014 NTOBASE  
 C00012 NTYPE  
 C00017 NWDTYPE  
 P00133 PRNTAB  
 X00002 Q8QDICT.  
 X00006 QNSINGL.  
 C00000 RFLAT  
 C00002 RFLONG  
 X00005 STM.  
 X00001 THEND.  
 P00242 TS000C1.  
 P00204 W0000C1.  
 C0116 SYMBCLS

00170 00171 00247 00247  
 00251 00252

00205 00205 00231  
 00133 00134

00266 00213  
 00207 00220  
 00214 00140  
 00143 00151  
 00203 00243

00154 00162 00175 00223 00254  
 00157 00165 00200 00237 00263

```

SUBROUTINE SNAPCON
  CSUBR      SNAPCON  ZUECTO *****
  C          KINDS OF SNAPS. EACH SNAP CARD SPECIFIES THE KIND OF SNAP
  C          THE GROUPS AND CORRIGS OVER WHICH IT IS TURNED ON AND THE
  C          FREQUENCY. IF GROUP(CORRIG) (FREQUENCY) ARE ZERO OR BLANK
  C          SNAPS ARE TURNED ON FOR ALL VALUES OF GROUP(CORRIG) (FREQUENCY).
  C          IFIPRNT ZUECTO *****
  CUSE       COMMON/IFIPRNT/IFIPRNT(10) *****
  C          IFIPRNT *****
  C          OUTSRT 16FEB71 *****
  C          COMMON/OUTSRT/OUTSRT *****
  C          1,MYGROUP,MYCORR,MYOVED,IREF,1UPEN,IPAYLCAD,LNCHBASE,11YP
  C          2,BLAT,BLONG,NAP,IBTYPE(10),OBLAT(10),OBLONG(10),OLAT(10),OLONG(10)
  C          3,IBJEC(10),IBUES(10),IBTSK(10),IBCTY(10),IBFLG(10),A1TRCUT(10),
  C          4,SURVCUT(10),GGLCW1,GGLCW2,GGLCW3,SPDLC,
  C          4SPON1,RANGE,RANGERE,DELAY,IRG,ILRI,1DEQMR,AVALLON,MNGDEC
  C          /OUTSRT/ IS THE INPUT RECORD FROM STKFILE *****
  C          OUTSRT *****
  C          SNAPCON  ZUECTO *****
  C          COMMON/SNAPCON/NAP(15) *****
  C          SNAPCON *****
  C          DATA(MAXREQ=40) *****
  C          DATA(MPRNT=15) *****
  C          MAXREQ  MAXIMUM NUMBER OF REQUESTS
  C          MPRNT   MAXIMUM NUMBER OF SNAPS
  C          DIMENSION INDEXPR(40),JAGRCUP(40),JACORR(40),JASORT(40),
  C          ILACORR(40),KREQ(40),ICOUNT(40),JASORT(40),LASORT(40)
  C          TYPE INTEGER BOUNDLS,BSOUNDUP
  C          TYPE LOGICAL LAC,LBC
  C          DATA(GGGBCL=140 737 498 355 326)
  C          TYPE INTEGER GGGBCL
  C          DATA(1SMGT=1)
  C          DC 2 IPRNT=1,MPRNT
  C          2 NAP(IPRNT)=1
  C          DC 12 1=1,10
  C          12 IFIPRNT(1)=0
  C          IF(1SMGT)1,20
  C          1 ISMGT=0
  C          IREQ=1
  C          NREQ=0
  C          READ 9,INDEXPR(1),JAGRCUP(1),JACORR(1),JASORT(1),LAGRCUP(1),
  C          ILACORR(1),LASORT(1),KREQ(1)
  C          IF(INDEXPR(1).GT.0)13,11
  C          13 PRINT 3
  C          3 FORMAT(23X,13H SNAP REQUESTS,/)
  C          PRINT 4
  C          4 FORMAT(6X,THREQUST,7X,6H LGROUP,4X,9H LCORR,10X,7X,6H L SORTY,
  C          17X,6H L GROUP,4X,9H L CORR,10X,7X,6H L SORTY,4X,9H FREQUENCY)
  C          5 IF(IREQ.GT.MAXREQ)6,8
  C          6 IREQ=MAXREQ
  C          PRINT 7
  C          7 FORMAT( 23H TOO MANY SNAP REQUESTS)
  C          8 PRINT 10,INDEXPR(IREQ),JAGRCUP(IREQ),JACORR(IREQ),JASORT(IREQ),
  C          11LAGRCUP(IREQ),LAGRC(IREQ),LASORT(IREQ),KREQ(IREQ)
  C          10 FORMAT(8(13X,110))
  C          ICOUNT(IREQ)=0

```

```

IREQ = IREQ+1
HEAD 9,INDEXPH(IREQ),JAGROUP(IREQ),JACORR(IREQ),JASORT(IREQ),
JLAGROUP(IREQ),LACORR(IREQ),LASORT(IREQ),KFREQ(IREQ)
* FORMAT(B110)
IF (INDEXPH(IREQ).GT.0) * 1,1
11 NREQ=IREQ+1
RETURN
20 DC 30 IREQ=1+IREQ
IPRNT=INDEXPH(IREQ)
22 IF (MYGROUP.NE.ISGROUP) 23,24
23 ICOUNT(IREQ)=0
24 LAC=BOUNDLOW=JAGROUP(IREQ) $ LAC=.NOT.LAC
LBC=BOUNDUP=LACGROUP(IREQ) $ LBC=.NOT.LBC
BOUNDUP=BOUNDUP+LBC*BOUNDLOW+LAC*GGGCL
IF (BOUNDLOW.LE.MYGROUP.AND.MYGROUP.LE.BOUNDUP) 25,30
25 LAC=BOUNDLOW=JACORR(IREQ) $ LAC=.NOT.LAC
LBC=BOUNDUP=LACORR(IREQ) $ LBC=.NOT.LBC
BOUNDUP=BOUNDUP+LBC*BOUNDLOW+LAC*GGGCL
IF (BOUNDLOW.LE.MYCORR.AND.MYCORR.LE.BOUNDUP) 31,30
26 LAC=BOUNDLOW=JASORT(IREQ) $ LAC=.NOT.LAC
LBC=BOUNDUP=LASORT(IREQ) $ LBC=.NOT.LBC
BOUNDUP=BOUNDUP+LBC*BOUNDLOW+LAC*GGGCL
IF (BOUNDLOW.LE.ICUTSRI.AND.ICUTSRI.LE.BOUNDUP) 26,30
26 IF (IPRNT.LT.100) 28,27
27 LEG=XMODF(IPRNT,100)
IF (IPRNT(LEG)=KFREQ(IREQ)) $ 6C 10 30
28 ICOUNT(IREQ)=ICOUNT(IREQ)+1
IF (ICOUNT(IREQ).GE.KFREQ(IREQ)) 29,30
29 NAPI(IPRNT)=3
ICOUNT(IREQ)=0
30 CONTINUE
ISGROUP=MYGROUP
END

```

44000  
45000  
46000  
47000  
48000  
49000  
50000  
51000  
52000  
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54000  
55000  
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69000  
70000  
71000  
72000  
73000  
74000  
75000  
75000

5.ATS SNAPCON

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

SNAPCON

IFTPRINT  
OUTSRT  
SNAPCON

EXTERNAL SYMBOLS

THEND.  
Q301004C  
Q300004C  
Q00DICT.  
K00DF  
TSM.  
STM.  
QNSINGL.

IDENT

U125U  
U0542

U0012  
U0221  
U0017

SNAPCON

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## 5.4TS SNAPCON

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| CODE   | DESCRIPTION | U1030 | U1037 | U1064 | U1073 | U1122 | U1127 | U1136 | U1165 | U1172 | U1186 | U1172 |
|--------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CU0160 | ATTRCUT     |       |       |       |       |       |       |       |       |       |       |       |
| CU0217 | AVAILCM     | U1235 |       |       |       |       |       |       |       |       |       |       |
| PU1234 | BEGIN.      |       |       |       |       |       |       |       |       |       |       |       |
| CU0011 | BLAT        |       |       |       |       |       |       |       |       |       |       |       |
| CU0012 | BLONG       |       |       |       |       |       |       |       |       |       |       |       |
| PU1231 | BOUNDLCM    |       |       |       |       |       |       |       |       |       |       |       |
| PU1230 | BOUNDLP     |       |       |       |       |       |       |       |       |       |       |       |
| PU1233 | CNVRT1.     |       |       |       |       |       |       |       |       |       |       |       |
| PU1241 | COUNT.      |       |       |       |       |       |       |       |       |       |       |       |
| PU0557 | CREMT.      |       |       |       |       |       |       |       |       |       |       |       |
| CU0213 | DELAY       |       |       |       |       |       |       |       |       |       |       |       |
| PU0201 | DICT.       |       |       |       |       |       |       |       |       |       |       |       |
| CU0052 | DLAT        |       |       |       |       |       |       |       |       |       |       |       |
| CU0064 | DLONG       |       |       |       |       |       |       |       |       |       |       |       |
| PU1236 | ENDING.     |       |       |       |       |       |       |       |       |       |       |       |
| PU0000 | EXIT.       |       |       |       |       |       |       |       |       |       |       |       |
| PU0557 | FORMAT.     |       |       |       |       |       |       |       |       |       |       |       |
| PU0711 | GG00000.    |       |       |       |       |       |       |       |       |       |       |       |
| PU0722 | GG00001.    |       |       |       |       |       |       |       |       |       |       |       |
| PU0730 | GG00002.    |       |       |       |       |       |       |       |       |       |       |       |
| PU0743 | GG00003.    |       |       |       |       |       |       |       |       |       |       |       |
| PU0762 | GG00004.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1005 | GG00005.    |       |       |       |       |       |       |       |       |       |       |       |
| CU0204 | GLCw1       |       |       |       |       |       |       |       |       |       |       |       |
| CU0205 | GLCw2       |       |       |       |       |       |       |       |       |       |       |       |
| CU0206 | GLCw3       |       |       |       |       |       |       |       |       |       |       |       |
| PU0555 | GC06CL      |       |       |       |       |       |       |       |       |       |       |       |
| PU1242 | I           |       |       |       |       |       |       |       |       |       |       |       |
| CU0134 | IBCTV       |       |       |       |       |       |       |       |       |       |       |       |
| CU0110 | IBDES       |       |       |       |       |       |       |       |       |       |       |       |
| CU0146 | IBFLG       |       |       |       |       |       |       |       |       |       |       |       |
| CU0076 | IBJEC       |       |       |       |       |       |       |       |       |       |       |       |
| CU0122 | IBTSK       |       |       |       |       |       |       |       |       |       |       |       |
| CU0014 | IBTYPE      |       |       |       |       |       |       |       |       |       |       |       |
| PU0363 | ICOUNT      |       |       |       |       |       |       |       |       |       |       |       |
| CU0216 | IDBOMBER    |       |       |       |       |       |       |       |       |       |       |       |
| CU0005 | IDPEN       |       |       |       |       |       |       |       |       |       |       |       |
| PU1036 | IF00001.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1037 | IF00002.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1051 | IF00003.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1052 | IF00004.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1067 | IF00005.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1101 | IF00006.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1102 | IF00007.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1114 | IF00010.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1115 | IF00011.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1132 | IF00012.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1144 | IF00013.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1145 | IF00014.    |       |       |       |       |       |       |       |       |       |       |       |
| PU1157 | IF00015.    |       |       |       |       |       |       |       |       |       |       |       |

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ED 0

5

|        |           |       |       |       |       |       |       |
|--------|-----------|-------|-------|-------|-------|-------|-------|
| P01160 | IF000016. | 01156 |       |       |       |       |       |
| P01175 | IF000017. | 01174 |       |       |       |       |       |
| C00000 | IF000018. | 00661 | 00662 | 01210 | 01211 |       |       |
| C00215 | ILPT      | 00677 | 00711 | 00750 | 00772 | 01005 | 01020 |
| P00003 | INDEXPR   |       |       |       |       |       |       |
| C00003 | INDEXPR   | 00645 |       |       |       |       |       |
| P01234 | INITIAL.  | 01173 | 01173 | 01175 | 01175 |       |       |
| C00000 | ICUTSRI   | 01173 |       |       |       |       |       |
| C00006 | IPAYLCAD  | 00647 | 00951 | 01021 | 01200 | 01203 | 01217 |
| P01243 | IPRNT     | 00670 | 00730 | 00734 | 00747 | 00763 | 00764 |
| P01244 | IREF      |       |       |       |       |       |       |
| C00214 | IRG       | 01023 | 01224 |       |       | 00772 | 01010 |
| P01245 | ISGROUP   | 00664 | 00667 |       |       |       | 01014 |
| P00556 | ISHGT     |       |       |       |       |       | 01015 |
| C00010 | ITYP      | 00664 |       |       |       |       |       |
| P00666 | .1        | 00712 | 00713 | 01006 | 01007 |       |       |
| P01010 | .11       |       |       |       |       |       |       |
| P00661 | .12       |       |       |       |       |       |       |
| P00714 | .13       |       |       |       |       |       |       |
| P01013 | .20       |       |       |       |       |       |       |
| P00653 | .2        | 00665 |       |       |       |       |       |
| P01022 | .22       |       |       |       |       |       |       |
| P01025 | .23       |       |       |       |       |       |       |
| P01027 | .24       |       |       |       |       |       |       |
| P01072 | .25       | 01024 |       |       |       |       |       |
| P01200 | .26       | 01177 |       |       |       |       |       |
| P01203 | .27       | 01201 | 01202 |       |       |       |       |
| P01212 | .28       | 01214 |       |       |       |       |       |
| P01216 | .29       | 01066 | 01071 | 01131 | 01134 | 01174 | 01177 |
| P01222 | .30       | 01134 |       |       |       |       | 01215 |
| P01135 | .31       | 01007 |       |       |       |       |       |
| P00730 | .5        |       |       |       |       |       |       |
| P00733 | .6        | 00731 | 00732 |       |       |       |       |
| P00743 | .8        | 01060 | 01063 | 01123 | 01126 | 01166 | 01171 |
| P01240 | .ERASER.  | 00746 |       |       |       |       |       |
| P00631 | .10       | 00717 |       |       |       |       |       |
| P00557 | .13       | 00725 |       |       |       |       |       |
| P00566 | .14       | 00740 |       |       |       |       |       |
| P00623 | .17       | 00675 | 00770 | 00775 | 01072 |       |       |
| P00637 | .19       | 00701 | 00752 | 00774 | 01027 |       |       |
| P00123 | JACORR    | 00700 | 00751 | 00776 | 01135 |       |       |
| P00053 | JAGRCUP   | 00702 | 00753 | 00776 | 01135 |       |       |
| P00033 | JASORT    | 00706 | 00757 | 01002 | 01207 | 01214 |       |
| P00133 | KFREU     | 01032 | 01034 | 01041 | 01062 | 01075 |       |
| P01227 | LAC       | 01170 |       |       |       |       | 01147 |
| P00243 | LACORR    | 00704 | 00755 | 01000 | 01105 | 01140 | 01142 |
| P00173 | LACRCUP   | 00703 | 00754 | 00777 | 01042 |       |       |
| P00503 | LASORT    | 00705 | 00756 | 01001 | 01150 | 01153 | 01155 |
| P01226 | LBC       | 01045 | 01047 | 01054 | 01056 | 01110 | 01112 |
| P01246 | LEG       | 01164 |       |       |       |       | 01121 |
| C00007 | LNCHBASE  | 01207 | 01210 |       |       |       | 01162 |

| 5.4TS  | SNAPCON       | 11/24/71 | ED    | 0     | PAGE NO. | 6 |
|--------|---------------|----------|-------|-------|----------|---|
| P00553 | MAXREG        |          |       |       |          |   |
| P00554 | MPRNT         |          |       |       |          |   |
| C00002 | MYCOMR        |          |       |       |          |   |
| C00001 | MYGRUP        | 01007    | 01223 | 01223 |          |   |
| C00000 | NAP           | 01007    | 01223 | 01223 |          |   |
| C00013 | NHAP          |          |       |       |          |   |
| P01247 | NREQ          |          |       |       |          |   |
| C00026 | GBLAT         |          |       |       |          |   |
| C00040 | GBLCNG        |          |       |       |          |   |
| X00003 | GB000C40      |          |       |       |          |   |
| X00002 | Q3010C40      |          |       |       |          |   |
| X00004 | Q8001C40      |          |       |       |          |   |
| X00010 | QNSINGL.      |          |       |       |          |   |
| C00211 | RANGE         |          |       |       |          |   |
| C00212 | RANGREF       |          |       |       |          |   |
| C00220 | RNGDEC        |          |       |       |          |   |
| P00642 | SNAPCON       |          |       |       |          |   |
| C00210 | SPDHI         |          |       |       |          |   |
| C00207 | SPDLC         |          |       |       |          |   |
| X00007 | STH.          |          |       |       |          |   |
| C00172 | SURVCUT       |          |       |       |          |   |
| X00001 | THEMD.        |          |       |       |          |   |
| P00656 | TS00001.      |          |       |       |          |   |
| P01223 | TS00003.      |          |       |       |          |   |
| X00006 | TSH.          |          |       |       |          |   |
| P00653 | WS00001.      |          |       |       |          |   |
| P00661 | WS00002.      |          |       |       |          |   |
| P01020 | WS00003.      |          |       |       |          |   |
| X00005 | XMC0F         |          |       |       |          |   |
|        | 00203 SYMBCLS |          |       |       |          |   |

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FTMS.5

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SUBROUTINE SNAPIT(IG,NG)
  CSUBR  SNAPIT  2DEC70 *****
  C      CONTROL AND DRIVER FOR SNAPOUT *****
  CUSE   SNAPON  2DEC70 *****
  C      COMMON/SNAPON/NAP(15) *****
  CEND   SNAPON *****
        DATA(NAP=10(1))
        IF(NAP(IG).EQ.3)1,3
        1 CALL TIMEE(-2)
        4 PRINT 6
        6 FORMAT(1H )
        PRINT 2,IG
        2 FORMAT(1H+,1UX,13H PRINT NUMBER,14)
        IF(IG.EQ.4)7,5
        7 PRINT 477
        477 FORMAT(30X,13HBOUNDARY SNAP)
        5 CALL SNAPOUT(IG,NG)
        3 CALL TIMEE(-3)
        3 RETURN
        END
1000
95000
2000
3000
1000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000

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S.OTS SNAPIT

IDENT SNAPIT

00152

00020

00017

PROGRAM LENGTH

ENTRY POINTS SNAPIT

BLOCK NAMES SNAPON

EXTERNAL SYMBOLS

TEND.

ORODICT.

TIMEHE

SNAPOUT

SIM.

QMSINGL.

[illegible]

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SUBROUTINE SNAPOUT(ILL,MK)
  CUSUR  SNAPOUT  130CT71 *****
  CUSE   ASHARRY  20ECT0 *****
  COMMON/ASHARRY/ALAT(10),ALON(10),FLY(10),IDS(10),ICRD(10),
  1JAY,DIST *****
  CEND   ASHARRY *****
  CUSE   ASHTABLE 10FEB71 *****
  COMMON /ASHTABLE/ IMMDSM(20),RANGEASM(20),RELASH(20),
  1CEPASH(20),SPEEDASM(20) *****
  * DIMENSION = MASKTTP = MAX NUM ASM TYPES
  CEND   ASHTABLE *****
  CUSE   BLOCK     10FEB71 *****
  COMMON/BLOCK/ LOCK(320) *****
  DIMENSION BLOCK(320) *****
  EQUIVALENCE (LOCK, BLOCK) *****
  CEND   BLOCK *****
  CUSE   BOUND     20ECT0 *****
  COMMON/BOUND/X1,Y1,X2,Y2,L2N,AR,YR,N2N,IZIT *****
  BOUND *****
  CEND   BOUND *****
  CUSE   BOUNDPT  20ECT0 *****
  COMMON/BOUNDPT/ZLAT1(40),ZLON1(20),ZLAT2(20),ZLON2(20),PK *****
  BOUNDPT *****
  CEND   BOUNDPT *****
  CUSE   1,ICURZON,CHECK,BETA,CROSSING(2,10),AJZONE(20),LNC *****
  CONTROL 20ECT0 *****
  COMMON/CONTROL/ICE,LSIDE,NPLCI,ISZE,SCALE *****
  CONTROL *****
  CEND   CONTROL *****
  CUSE   CRRCHAH  10FEB71 *****
  COMMON /CRRCHAH/ PCLAT(30),PCLONG(30),PCZONE(30),RPLAT(30),
  1RPLONG(30),ENTLAT(30),ENTLONG(30),CRLNGTH(30),
  2KCRSTYLE(30),ATTRCRR(30),ATTRSUPP(30),
  3HILCATTR(30),DEFRRNGE(30),NPRCHDEF(30),
  4DEFULST(30,3),ATTRPHE(30,3),NDATA *****
  TYPE INTEGER PCZONE *****
  DIMENSION = MCORR = MAX NUM PENETRATION CORRIDORS
  CRRCHAH *****
  CUSE   CRRCOUNT 20ECT0 *****
  COMMON/CRRCOUNT/IM,KC,JH,LC *****
  CRRCOUNT *****
  CEND   CRRCOUNT *****
  CUSE   DINCATA  20ECT0 *****
  COMMON/DINCATA/HUT(90),KPL(90),JTP(90),HLA(90),MLC(90),TZT(90),
  1TZN(90),PA(90),NMT,NPL *****
  DINCATA *****
  CEND   DINCATA *****
  CUSE   DINDATA2 20ECT0 *****
  COMMON/DINDATA2/CMT(90),IMH(90) *****
  DINDATA2 *****
  CEND   DINDATA2 *****
  CUSE   DISTC     20ECT0 *****
  COMMON/DISTC/DISTC(20) *****
  DISTC *****
  CEND   DISTC *****
  CUSE   DITC      20ECT0 *****
  COMMON/DITC/DITC(20) *****
  DITC *****
  CEND   DITC *****
  CUSE   HILC      20ECT0 *****
  COMMON/HILC/HILC(20) *****
  HILC *****
  CEND   HILC *****
  CUSE   IDP       20ECT0 *****
  COMMON/IDP/IDP(2) *****
  IDP *****
  CEND   IDP *****
  CUSE   INDATA  10FEB71 *****
  COMMON /INDATA/ INDATA,INBASE,INDV,IJUMI(2),ILAST,IJUM2(2),
  *****

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1,ITYPE,ICLASS,INRG,IALERT,IDUM3(3),IALT,NCMS,IDUM4(3),
2,MFL,MWT,LDUMA(2),NPLAN,LDUM5,FINC(80),INDP(80),INDE(80),INTYP(12),
3,XUGZ(12),YD6Z(12),ZD6Z(12),IDUM6(6)
TYPE INTEGER XUGZ,YD6Z,ZD6Z

C
DIMENSION ISVY(6)
EQUIVALENCE (ISVY, INDV) , (FILAST, ILAST)
INDATA
IOUTOLD 16FEB71
COMMON/IOUTOLD/IOUTOLD,KCKG,MYGRUP,MYCORR,LPAYLOAD,LREF,LOPEN
1,SPDHQ,SPDLCO,JFCIN,NHAPC,IBJEC(20),IBDESC(20),IBTSKC(20),
2,IBCTY(20),IBFLG(20)
IOUTOLD
IRF 2DEC70
COMMON/IRF/IRF,NRF
IRF
IRFTK 2DEC70
COMMON/IRFTK/IRFTK
IRFTK
ITP 2DEC70
COMMON/ITP/ITP
ITP
KEYLENG 2DEC70
COMMON/KEYLENG/LOS,LIN,LON,LINC,LTK,LMS,LMS,LDBL
KEYLENG
LASH 2DEC70
COMMON/LASH/U1,V1,U2,V2,UAT,VAT,RASH,RLAT,RLONG
LASH
LAUNSNAP 2DEC70
COMMON/LAUNSNAP/INRANGE,IFACPATH
LAUNSNAP
MASTER 16FEB71
COMMON/MASTER/INDATE,IDENTNO,ISIDE,NKPT,NCORR,NDPEN,NRECOVER
1,NREF,NBNDY,NNEG,NTYPE,NNGROUP,NTQBASE,NPAYLOAD,NASHTYPE,NMHDTYPE
2,TANKBAS,NCOMPLEX,NCLASS,NALERT,NTUTS,NCORRYTYPE,NCNTRY
MASTER
MH 2DEC70
COMMON/MH/MHMINA(10),MHMAXA(10),MHMN,MHMX
MH
MH2 2DEC70
COMMON/MH2/MHMIN(2),MHMAX(2)
MH2
OUTSRT 16FEB71
COMMON/OUTSRT/OUTSRT
1,MYGROUP,MYCORR,INOVEM,IREF,IOPEN,IPAYLOAD,INCHBASE,ITYP
2,OLAT,OLONG,NHAP,IBTYPE(10),OBLAT(10),OBLONG(10),OLAT(10),OLONG(10)
3,IBJEC(10),IBUES(10),IBTSK(10),IBCTY(10),IBFLG(10),AITRUT(10),
4,SURVOUT(10),GLOW1,GLOW2,GLOW3,SPOLQ,
4,SPDHQ,RANGERE,REF,ELAY,IRG,ILRT,IDROMBER,AVAILCH,MNGDEC
/OUTSRT/ IS THE INPUT RECORD FROM STRKFILE
OUTSRT
PAYLOAD 2DEC70
COMMON/PAYLOAD/NBCHB(1,40),IMHD1(40),NBCHB2(40),IMHD2(40)
1,NASHM(40),IASM(40),NCM(40),NDECCYS(40),NDECCYS(40),IMIRV(40)
PAYLOAD
PLANTYPE 2DEC70

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3

2546





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PRINT 32,(1,MOT(1),MPL(1),KNAMES(K),LATITUDE,LCNGTUOE
*CMCT(1),IMM(1),MLA(1),MLC(1))
32 FORMAT(SA,12A2A,FI,3,2A,1B,2A,1B,4A,4A,3A,4B,5A,1B,4A
*FB,2A,1B,1B,FI,3,2A,FI,3)
33 CONTINUE
GC TO IPHAT
SNAPIT--4 BOUNDARY SNAP
4 CONTINUE
GC TO (A01,002,003,004,005,006)MLK
401 PRINT *11,ALAT,1,02,YZ,12N
FORMERLY PRINT 509
411 FORMAT(19M INPUT LINE SEGMENT,4F11.4,10)
RETURN
402 PRINT *12,ZLAT(1KK),ZLON(1KK),ZLAT2(KK),ZLON2(KK),ICUNZON
FORMERLY PRINT 508
412 FORMAT(19M ZONE BOUNDARY LINE,4F11.4,10)
RETURN
403 PRINT *13,CHECK
FORMERLY PRINT 520
413 FORMAT(2M CHECK =F11.4)
RETURN
404 PRINT *14,BETA
414 FORMAT(7M BETA =F13.0)
FORMERLY PRINT 512
RETURN
405 PRINT *15,CROSSING(1,LCNG),CROSSING(2,LCNG),AJZONE(KK)
FORMERLY PRINT 510
415 FORMAT(22M POINT OF INTERSECTION,2F11.4,17/)
RETURN
406 PRINT *15,XX,YY,K,NZN
RETURN
C SNAP--5 LAUNCH SNAP
5 CONTINUE
PRINT 577
577 FORMAT(30X,11M LAUNCH SNAP)
PRINT 9C
PRINT 510,1V1,02,V2,UAT,VAT,MASH
51 FORMAT(10X,3M UAT=FB,3,2A,3M V1=FB,3,2X,3M U2=FB,3,2X
10M V2=FB,3,2X,4M UAT=FB,3,2A,4M VAT=FB,3,2X,5M MASH=FB,1)
ISINSH IS
IF (INRANGE)53,52
52 ISIN=5M NOT
53 PRINT 54,ISIN
54 FORMAT(7M TARGET=5,10MIN RANGE OF PATH)
DISGCC=DISIF(RLAT,RLCNG,UAT,VAT)
PRINT 55,FRACPATH,DISGCC,MLAT,RLCNG
55 FORMAT(11,9M FRACPATH=7,4,2A,6M DISGCC=FB,1,2X,5M RLAT=FB,3,2X
10M RLCNG=FB,3)
RETURN
C SNAP--6 SNAPS/ASHARRAY/DUING REORDER OF ASM EVENTS
6 CONTINUE
PRINT 677
677 FORMAT(30X,10M/ASHARRAY/)
PRINT 9C
PRINT 6C0
600 FORMAT(15X,4M LAT,6X,4M LON,6X,4M IFLY,6X,4M DIS,6X,4M ICRD

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1,5X,5H0BLAT,5X,6H0BLONG)
DC 602 I=1,NMAP
PRINT 601,ALAT(I),ALON(I),IFLY(I),JUIS(I),IORD(I)
1,6HBLAT(I),6HBLONG(I)
601 FORMAT(1A,F4.3,F10.3,F10.3,2A,2I10,2F10.3)
602 CONTINUE
RETURN
C SNAP--7 CORRUPT SNAP FROM/HAPPEN/
C WILL SNAP CORRUPTORS OVER 20 LINES.
7 CONTINUE
PRINT 777
777 FORMAT(30X,17HPRE-CORRUPTOR LEUS)
71 PRINT 778
778 SNAPSHOT 1 130CT71 *****
778 FORMAT(10X,31HPRINT DELETED--EXCEEDS 20 LINES)
RETURN
72 PRINT 90
73 PRINT 73
73 FORMAT(4X,2H1M,6X,7HJAPTYPE,3X,6HMAPLAT,4X,7HMAPLONG,3X,7HMAPDIST)
74 NAMCOR(I)=6H0000LEG
NAMCOR(I)=6H0K1G1N
NAMCOR(KC)=5HENTHY
DC 76 I=1,KC
ISLE=IM-1-I
PRINT 75,ISLE,JAPTYPE(ISLE),MAPLAT(ISLE),MAPLONG(ISLE)
1,MAPDIST(ISLE),NAMCOR(I)
75 FORMAT(16,4X,10,4X,2F10.3,F10.1,2X,A8)
76 CONTINUE
RETURN
C SNAP--8 DEPEND CORRU SNAP FROM HAPPEN
8 CONTINUE
PRINT 877
877 FORMAT(30X,22HDEPENDENTATION CORRUPTOR)
PRINT 90
81 PRINT 81
81 FORMAT(4X,2H1M,6X,7HJAPTYPE,3X,6HMAPLAT,4X,7HMAPLONG,3X,7HMAPDIST)
DC 82 I=1,LC
82 NAMCOR(I)=6H0000LEG
NAMCOR(LC)=5HRECOV
DC 84 I=1,LC
ISLE=JM-1-I
PRINT 83,ISLE,JAPTYPE(ISLE),MAPLAT(ISLE),MAPLONG(ISLE)
1,MAPDIST(ISLE),NAMCOR(I)
83 FORMAT(16,4X,10,4X,2F10.3,F10.1,2X,A8)
84 CONTINUE
IF(1000)86,87
86 PRINT 85,X0K0,NASH,SPASH
85 FORMAT(10X,8HASH TYPE,10,2X,12HMAS RANGE OF,F7.1,2X
1,15HMAILES AND SPEED,F8.2,2X,3HMPH)
87 PRINT 88, NCMS
88 FORMAT (10X,5HNCMS,10)
RETURN
C SNAP--9 RESTART SNAP
9 CONTINUE

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[illegible]

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1177 FORMAT(30X,7H ADJUST)
PRINT 1110
1110 FORMAT(10X,'5HUNADJUSTED PLAN')
115 MIN=1
MAXENMAP=1
PRINT 119
119 FORMAT(10X,4X,1H1,5X,7HALAT(1),5X,7HALON(1),5X,17HDIANCE,1 TO 1,
11 /)
DC 117 I = MIN*MAX
PRINT 118, 1,ALAT(1),ALON(1),DISTC(1)
118 FORMAT(3X,13,5X,7,3,5X,7,3,10X,7,3)
117 CONTINUE
IF (MLK.EQ. 3) GO TO 1140
PRINT 1180, GOLCOW2,GOLCOW3,MHT
1180 FORMAT(10X,7HCOLCOW2=F8.3,2X,7HCOLCOW3=F8.3,2X,4HMMHT=F8.3,14)
113 RETURN
116 CONTINUE
112 PRINT 114
114 FORMAT(10X,9X,13HADJUSTED PLAN )
GO TO 115
1140 PRINT 1145, 1STOREM1,1STORELQ,1GOLCOW2,1GOLCOW3,1FAC1,1FAC2,1GOLCOW3,MHT
1145 FORMAT(10X,10H1STOREM1=F14.3X,10H1STORELQ=F14.3X,8H1GOLCOW2=F14.3X,
1 8H1FAC1=F8.3,3X,8H1FAC2=F8.3,3X,5H1GOLCOW3=F8.3,3X,
2 4HMMHT=F14.3)
GO TO 113
12 CONTINUE
C SNAP--12 ABBREVIATED FINAL PLAN
PRINT 90
PRINT 120,INDATA,MYGRCUPC,MYCORNG,1OUTOLD,1NBASE,1INDV,1TYPE,MFL
*MT,NPLAN,1NED,1ALEM1
120 FORMAT(2X,6H1SIDE,12,2X,5H1GRCUP,14,2X,8H1CORRIDOR,13,2X,5H1SCRTY,14
*2X,6H1NBASE,19,2X,4H1INDV,13,2X,5H1TYPE,13,2X,4HMMHT=F12.2X,4HMMHT=
*12,2X,6H1NPLAN=F12,2X,5H1NED=F12,2X,7H1ALERT=F11)
LL = 1
IF (NPLAN.GT.20) 125,126
125 LU = 20
ASSIGN 127 TO ISP
GO TO 1200
127 LL = 20
126 LU = NPLAN
ASSIGN 128 TO ISP
GO TO 1200
128 IF (NPLAN.EQ.MFL) 129, 130
130 PRINT 90
LL = NPLAN + 1
LU = MFL
ASSIGN 129 TO ISP
GO TO 1200
129 RETURN
C LOCAL SUBROUTINE ISP
1200 PRINT 121, (I = LL,LU)
121 FORMAT(10X,2015)
PRINT 122, (I = LL,LU)
122 FORMAT(6X,4H1INC,20F5,2)
123 PRINT 123, (I = LL,LU)
123 FORMAT(6X,4H1INC,2015)

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```

1  DC 9370 I = 1, NMIS
   MISIND = LOCK(18+1)
   ISILCIND = LOCK(36+1)
   PRINT 9342, MISIND, ISILCIND
9342 FORMAT(9M, MISSILE, I3, 2X, MSILC, I6, 8M, TARGET, 5X, 3HDGY,
1  5X, 4HDHGB, 5X, 5HNADEL, 5X, 5HNTDEC, 5X, 11MFLIGHT TIME, 2X,
2  5HDESIG, 2X, 3HTRK, 1X, 5HCNTRY, 2X, 1HF)
   DC 9360 J = 1, NRV
9360 PRINT 9330, LOCK(J+50), LOCK(J+72), LOCK(J+90), LOCK(13), NADEC,
1  NDEC, LOCK(J+108), LOCK(J+198), LOCK(J+216), LOCK(J+234),
2  LOCK(J+252)
9370 CONTINUE
   RETURN
   END
205000
206000
207000
208000
209000
209100
209200
209300
210000
211000
212000
212500
213000
214000
215000

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IDENT      SNAPSHOT

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

|          |       |
|----------|-------|
| SNAPSHOT | U5635 |
| ASNAWAY  | U2974 |
| ASHTABLE | U0064 |
| BLCK     | U0144 |
| BOUND    | U0500 |
| BOUNDPT  | U0011 |
| BOUNDPT  | U0175 |
| CONTROL  | U0005 |
| CORCHAR  | U1131 |
| CORCUNT  | U0004 |
| DENDATA  | U1322 |
| DINDATA2 | U0264 |
| DISTC    | U0024 |
| HELO     | U0006 |
| IUP      | U0002 |
| INDATA   | U0500 |
| ICUTOLD  | U0157 |
| IRF      | U0002 |
| IRFTK    | U0001 |
| ITP      | U0001 |
| KEYLENG  | U0010 |
| LASH     | U0011 |
| LAUNSNAP | U0002 |
| MASTER   | U0027 |
| NH       | U0026 |
| NH2      | U0004 |
| OUTSMT   | U0221 |
| PAYLOAD  | U0620 |
| PLANTYPE | U0003 |
| S.4SM    | U0001 |
| TAPER    | U0014 |
| FILE S   | U0020 |
| WPNRHPX  | U0620 |
| WPNTYPEX | U0360 |
| 9        | U7304 |

EXTERNAL SYMBOLS

THEND.  
QUDDICT.  
LATCY  
LONCY  
DISTF  
TIMEE  
STM.  
ONSINGL.

**Sir's**

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|        |         |
|--------|---------|
| C00150 | AJZ0NE  |
| C00002 | ALAT    |
| C00012 | ALCCGP  |
| C00006 | ALCQTR  |
| C00012 | ALCN    |
| C00016 | ATRCGR  |
| C00016 | ATRCGR  |
| C00776 | ATRPRE  |
| C00054 | ATRSUP  |
| C00217 | AVAILC  |
| C00002 | BSFILE  |
| P00523 | BEGIN.  |
| C00123 | BETA    |
| C00011 | BLAT    |
| C00000 | BLOCK   |
| C00012 | BLONG   |
| C03434 | BPLAT   |
| C03124 | BPLINK  |
| C03744 | BPLONG  |
| C00454 | BPZONE  |
| C00074 | CEPASP  |
| C00122 | CEPCK   |
| C00000 | CMT     |
| C00272 | CMTX    |
| P00506 | CNVRII. |

03735 04101 04704 04705

04103 64706  
03227 63227

|       |       |       |
|-------|-------|-------|
| 03552 | 05560 | 05564 |
| 03720 | 03720 |       |

02745  
04627  
04625

u4626

03707  
03625  
03707  
03625

|       |       |       |
|-------|-------|-------|
| 02737 | 02740 | 02742 |
|-------|-------|-------|

02740 02741 02742 02743

U274U U2741 U2742 U2743 U2744

02740 02741 02742 02743 02744 02745

02740 02741 02742 02743 02744 02745 02746

02740 02741 02742 02743 02744 02745 02746 02747

02740 02741 02742 02743 02744 02745 02746 02747 02750

02740 02741 02742 02743 02744 02745 02746 02747 02750 02751

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 02740 | 02741 | 02742 | 02743 | 02744 | 02745 | 02746 | 02747 | 02750 | 02751 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

|        |         |
|--------|---------|
| CO0002 | CCRB02B |
| CO0001 | CCRB01L |
| PU5575 | CCUNT.  |
| PU0054 | CCFMT.  |

|       |       |       |       |
|-------|-------|-------|-------|
| 04150 | 04161 | 04246 | 04247 |
| 02724 | 02732 | 02767 | 03004 |
| 03164 | 03202 | 03220 | 03236 |
| 03444 | 03453 | 03523 | 03531 |

|       |       |       |       |
|-------|-------|-------|-------|
| 04161 | 04246 | 04247 | 03040 |
| 02132 | 02767 | 03004 | 03040 |
| 03202 | 03220 | 03236 | 03263 |
| 03453 | 03523 | 03531 | 03570 |

|       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 04161 | 04246 | 04277 | 03040 | 03056 | 03074 | 03112 | 03130 | 03146 |
| 02732 | 02767 | 03004 | 03022 | 03316 | 03324 | 03350 | 03366 | 03422 |
| 03202 | 03236 | 03261 | 03263 | 03316 | 03324 | 03350 | 03366 | 03422 |
| 03453 | 03523 | 03531 | 03570 | 03635 | 03665 | 03702 | 03713 | 03724 |

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C00322 CLENGTH  
C00124 CROSSING  
C00310 DBLX  
C00844 DEFDIST  
C00550 DEFRRANGE  
C00213 DELAY  
P00001 DICT.

03741 03763 04007 04025 04047 04056 04072 04114 04126 04137 04154  
04214 04226 04242 04301 04322 04332 04341 04366 04377 04416 04424  
04444 04463 04510 04532 04551 04570 04607 04615 04635 04654 04662  
04674 04713 04734 04743 04763 05017 05071 05107 05125 05143 05154  
05167 05227 05253 05354 05447  
03732 03734  
04600 04601  
02761 02720 02723 02726 02731 02734 02766 02771 03003 03096 03021  
02676 03037 03042 03055 03090 03114 03127 03132 03114 03127 03132  
03024 03145 03150 03163 03166 03201 03204 03217 03222 03240 03253  
03257 03262 03265 03273 03270 03273 03315 03320 03323 03347 03362  
03365 03375 03410 03416 03421 03424 03443 03443 03452 03455 03460  
03463 03522 03525 03530 03543 03543 03564 03567 03577 03604 03611  
03634 03653 03664 03670 03701 03705 03712 03716 03723 03727 03740  
03744 03753 03757 03762 03765 03770 03773 04006 04017 04024 04026  
04034 04046 04052 04055 04060 04063 04066 04071 04076 04113 04122  
04125 04133 04136 04142 04145 04150 04153 04200 04213 04222 04225  
04230 04233 04236 04241 04251 04254 04257 04365 04370 04376 04401 04415 04420 04423  
04430 04443 04451 04454 04457 04462 04467 04507 04515 04531 04534  
04550 04553 04567 04572 04573 04606 04614 04621 04634 04650 04653  
04656 04661 04670 04674 04771 04774 05016 05070 05072 04746  
05111 05124 05127 05142 05150 05153 05155 05163 05172 05175  
05207 05226 05245 05252 05340 05340 05400 05422 05441 05446 05453  
05475 05527 05530 05534 05525 05525 05526 03702 03713 03724 03741 03754 04047  
04031 04040 04707 04025 03173 03211 02677 04117 05504 05556 04754 04755 04007 05537 05542 05543 05544 05546 05547

P05576 DISGC  
C00063 DIST  
C00000 DISTC  
X00005 DISTF  
C00264 DISTRE  
C00052 DLAT  
C00064 DLONG  
C00007 DLYALTK  
C00010 DLYALTK  
P05553 ENDING.

C00226 ENLAT  
C00264 ENLONG  
C00016 EVENTAPE  
P00000 EXIT.  
C00003 FACHI  
C00004 FACLO  
C00005 FILAST  
P00034 FORMAT.  
P02700 FP00001.  
P03642 FP00002.  
P04642 FP00003.  
P04716 FP00004.



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|        |          |       |       |
|--------|----------|-------|-------|
| P05176 | FP00005. | 0555C | 05551 |
| P00001 | FRACPATH | 04036 | 04036 |
| P05567 | GETPL.   | 05531 | 05540 |
| P05557 | GETPU.   | 05534 | 05563 |
| P02724 | GG00000. | 02716 |       |
| P02732 | GG00001. | 02724 |       |
| P02767 | GG00002. | 02732 |       |
| P03004 | GG00003. | 02767 |       |
| P03022 | GG00004. | 03004 |       |
| P03040 | GG00005. | 03022 |       |
| P03055 | GG00006. | 03040 |       |
| P03074 | GG00007. | 03056 |       |
| P03112 | GG00010. | 03074 |       |
| P03130 | GG00011. | 03112 |       |
| P03146 | GG00012. | 03130 |       |
| P03164 | GG00013. | 03146 |       |
| P03502 | GG00014. | 03164 |       |
| P03220 | GG00015. | 03202 |       |
| P03236 | GG00016. | 03220 |       |
| P03254 | GG00017. | 03236 |       |
| P03463 | GG00020. | 03255 |       |
| P03471 | GG00021. | 03253 |       |
| P03316 | GG00022. | 03271 |       |
| P03324 | GG00023. | 03316 |       |
| P03350 | GG00024. | 03333 |       |
| P03366 | GG00025. | 03360 |       |
| P03411 | GG00026. | 03373 |       |
| P03422 | GG00027. | 03414 |       |
| P03444 | GG00030. | 03422 |       |
| P03453 | GG00031. | 03445 |       |
| P03461 | GG00032. | 03453 |       |
| P03523 | GG00033. | 03461 |       |
| P03531 | GG00034. | 03523 |       |
| P03544 | GG00035. | 03536 |       |
| P03570 | GG00036. | 03562 |       |
| P03635 | GG00037. | 03607 |       |
| P03665 | GG00040. | 03651 |       |
| P03702 | GG00041. | 03666 |       |
| P03713 | GG00042. | 03703 |       |
| P03724 | GG00043. | 03714 |       |
| P03741 | GG00044. | 03725 |       |
| P03754 | GG00045. | 03742 |       |
| P03763 | GG00046. | 03755 |       |
| P03771 | GG00047. | 03763 |       |
| P04007 | GG00050. | 03771 |       |
| P04025 | GG00051. | 04015 |       |
| P04047 | GG00052. | 04032 |       |
| P04056 | GG00053. | 04050 |       |
| P04064 | GG00054. | 04056 |       |
| P04072 | GG00055. | 04064 |       |
| P04114 | GG00056. | 04074 |       |
| P04126 | GG00057. | 04120 |       |
| P04137 | GG00060. | 04131 |       |
| P04146 | GG00061. | 04140 |       |

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|--------|----------|-------|
| PU4154 | GG00062. | 04146 |
| PU4214 | GG00063. | 04176 |
| PU4226 | GG00064. | U4220 |
| PU4234 | GG00065. | U4226 |
| PU4242 | GG00066. | U4234 |
| PU4301 | GG00067. | U4263 |
| PU4322 | GG00070. | U4306 |
| PU4332 | GG00071. | U4322 |
| PU4341 | GG00072. | U4333 |
| PU4347 | GG00073. | U4341 |
| PU4366 | GG00074. | U4347 |
| PU4377 | GG00075. | U4366 |
| PU4416 | GG00076. | U4377 |
| PU4424 | GG00077. | U4416 |
| PU4444 | GG00100. | U4426 |
| PU4455 | GG00101. | U4447 |
| PU4463 | GG00102. | U4455 |
| PU4510 | GG00103. | U4465 |
| PU4532 | GG00104. | U4513 |
| PU4551 | GG00105. | U4532 |
| PU4570 | GG00106. | U4551 |
| PU4607 | GG00107. | U4570 |
| PU4615 | GG00110. | U4607 |
| PU4635 | GG00111. | U4617 |
| PU4654 | GG00112. | U4646 |
| PU4662 | GG00113. | U4654 |
| PU4674 | GG00114. | U4666 |
| PU4713 | GG00115. | U4676 |
| PU4734 | GG00116. | U4721 |
| PU4743 | GG00117. | U4735 |
| PU4763 | GG00120. | U4744 |
| PU4772 | GG00121. | U4764 |
| PU5017 | GG00122. | U4772 |
| PU5045 | GG00123. | U5037 |
| PU5071 | GG00124. | U5054 |
| PU5107 | GG00125. | U5071 |
| PU5125 | GG00126. | U5107 |
| PU5143 | GG00127. | U5125 |
| PU5154 | GG00130. | U5146 |
| PU5167 | GG00131. | U5161 |
| PU5176 | GG00132. | U5170 |
| PU5227 | GG00133. | U5205 |
| PU5253 | GG00134. | U5243 |
| PU5354 | GG00135. | U5336 |
| PU5423 | GG00136. | U5376 |
| PU5447 | GG00137. | U5437 |
| PU5476 | GG00140. | U5451 |
| CU0005 | 60L0     | U4756 |
| CU0204 | 60L0W1   | U4751 |
| CU0205 | 60L0W2   | U4752 |
| CU0206 | 60L0W3   | U4753 |
| CU0712 | HAPDIS1  | U4207 |
| CU5726 | HAPLAT   | U4272 |
| CU6320 | HAPLONG  | U4273 |

U4725 04725

|       |         |          |    |   |          |    |
|-------|---------|----------|----|---|----------|----|
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|         |         |       |       |       |       |       |       |       |       |       |       |
|---------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C000000 | MDT     | 03614 | 03614 | 03011 | 03012 | 03015 | 03027 | 03030 | 03033 | 03045 | 03046 |
| C01320  | MDTX    |       |       | 03067 | 03101 | 03102 | 03105 | 03117 | 03120 | 03123 | 03135 |
| C000512 | MILCATH |       |       | 03154 | 03157 | 03154 | 03171 | 03175 | 03207 | 03210 | 03213 |
| C00416  | MLA     | 03575 | 03600 | 03630 | 03630 | 03630 | 03630 | 03630 | 03630 | 03630 | 03630 |
| C01736  | MLAX    |       |       | 03226 | 03226 | 03226 | 03226 | 03226 | 03226 | 03226 | 03226 |
| C00550  | MLC     | 03601 | 03605 | 03632 | 03632 | 03632 | 03632 | 03632 | 03632 | 03632 | 03632 |
| C02070  | MLCX    |       |       | 03274 | 03274 | 03274 | 03274 | 03274 | 03274 | 03274 | 03274 |
| P005577 | I       | 03051 | 03063 | 03064 | 03067 | 03067 | 03067 | 03067 | 03067 | 03067 | 03067 |
|         |         | 03136 | 03141 | 03153 | 03154 | 03154 | 03171 | 03175 | 03207 | 03210 | 03213 |
|         |         | 03225 | 03226 | 03231 | 03243 | 03243 | 03247 | 03330 | 03337 | 03350 | 03367 |
|         |         | 03370 | 03377 | 03401 | 03411 | 03427 | 03430 | 03437 | 03571 | 03572 | 03613 |
|         |         | 03635 | 03673 | 04100 | 04114 | 04155 | 04160 | 04172 | 04210 | 04214 | 04243 |
|         |         | 04246 | 04256 | 04261 | 04275 | 04301 | 04404 | 04405 | 04411 | 04425 | 04432 |
|         |         | 04434 | 04444 | 04464 | 04471 | 04473 | 04510 | 04521 | 04523 | 04525 | 04537 |
|         |         | 04540 | 04542 | 04544 | 04556 | 04557 | 04561 | 04575 | 04576 | 04600 | 04602 |
|         |         | 04623 | 04625 | 04635 | 04635 | 04675 | 04702 | 04713 | 05061 | 05062 | 05064 |
|         |         | 05076 | 05077 | 05102 | 05114 | 05115 | 05120 | 05133 | 05136 | 05230 | 05232 |
|         |         | 05236 | 05255 | 05357 | 05424 | 05426 | 05501 |       |       |       |       |
| C00013  | I ALERT | 03214 | 03503 | 05014 |       |       |       |       |       |       |       |

|        |          |
|--------|----------|
| C00013 | IALERT   |
| C00017 | IALT     |
| C00030 | IASM     |
| C00034 | IBCTY    |
| C00110 | IBCTYG   |
| C00116 | IBDES    |
| C00037 | IBDESC   |
| C00146 | IBFLG    |
| C00033 | IBFLGC   |
| C00076 | IBJEC    |
| C00013 | IBJEC    |
| C00122 | IBJSK    |
| C00063 | IBTSKG   |
| C00014 | IBTYPE   |
| C00000 | ICE      |
| C00011 | ICLASS   |
| C00121 | ICURZN   |
| C00216 | IDBCHBER |
| C00001 | IDENAG   |
| P05600 | IDGX     |
| P05601 | IDGY     |
| C00036 | IDIS     |
| C00000 | IDP      |
| C00005 | IDPEN    |
| C00003 | IDUM1    |
| C00006 | IDUM2    |
| C00014 | IDUM3    |
| C00021 | IDUM4    |
| C00031 | IDUM5    |
| C00472 | IDUM6    |
| C00026 | IDUMA    |
| C00024 | IFLY     |
| C00240 | IFNCIN   |
| C00002 | IGOLF    |
| P05602 | IGOLF    |

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|--------|----------|-------|-------|-------|-------|-------|
| CU0000 | IM       | 04173 | 04173 |       |       |       |
| CU5132 | IMAP     |       |       |       |       |       |
| CU0000 | IMDATE   | 04353 | 04353 |       |       |       |
| PU5603 | IMCB     | 05301 | 05345 |       |       |       |
| CU0120 | IMTYPE   | 04542 | 04543 |       |       |       |
| CU0005 | ILAST    |       |       |       |       |       |
| CU0000 | ILAUNDEC |       |       |       |       |       |
| PU0054 | ILK      | 02700 |       |       |       |       |
| CU0215 | ILRT     | 02764 |       |       |       |       |
| CU0550 | IMRV     |       |       |       |       |       |
| PU5507 | IN00004  | 03731 | 05521 |       |       |       |
| CU0001 | INBASE   | 03303 | 03303 | 03473 | 05004 | 05004 |
| CU0000 | INDATA   | 03275 | 03275 | 03465 | 04776 | 04776 |
| CU0072 | INDE     | 03331 | 03331 | 03371 | 03371 | 03404 |
| CU0000 | INDEXTK  |       |       |       |       |       |
| CU0152 | INDP     | 03342 | 03403 | 05116 |       |       |
| CU0002 | INDV     | 03305 | 03475 | 05006 |       |       |
| CU0003 | INDVEH   | 02742 |       |       |       |       |
| PU5524 | INITIAL  | 02677 |       |       |       |       |
| CU0000 | INITSTRK | 04372 | 04372 |       |       |       |
| CU0003 | INRANGE  | 04010 | 04011 |       |       |       |
| PU5604 | INTAN    | 05335 | 05342 |       |       |       |
| CU0050 | IORD     | 04106 |       |       |       |       |
| CU0000 | ICUTOLD  | 03302 | 03472 | 05003 |       |       |
| CU0000 | ICUTSRT  | 02741 |       |       |       |       |
| PU5605 | IPAY     | 05371 | 05371 |       |       |       |
| CU0006 | IPAYLCAO | 02746 |       |       |       |       |
| PU5606 | IPRNT    | 03535 | 03551 | 03640 |       |       |
| CU0004 | IREF     | 02747 |       |       |       |       |
| CU0003 | IREFTK   |       |       |       |       |       |
| CU0012 | IREF     | 03312 | 03501 | 05013 |       |       |
| CU0000 | IRF      | 00054 | 03507 |       |       |       |
| CU0000 | IRFTK    |       |       |       |       |       |
| CU0214 | IRG      | 02763 |       |       |       |       |
| CU0002 | ISIDE    | 04356 |       |       |       |       |
| PU5607 | ISILCIND | 05242 |       |       |       |       |
| PU5610 | ISIN     | 04010 | 05250 | 05436 | 05444 |       |
| PU5611 | ISLE     | 04175 | 04021 |       |       |       |
| PU5612 | ISP      | 05025 | 04202 | 04203 |       |       |
| CU0000 | ISTOREHI | 04750 | 05032 | 04262 | 04267 | 04270 |
| CU0001 | ISTORELO | 04752 | 04750 | 05052 | 05143 |       |
| CU0002 | ISVY     |       |       |       |       |       |
| CU0003 | ISZE     |       |       |       |       |       |
| CU0000 | ITP      |       |       |       |       |       |
| CU0010 | ITYP     | 02754 |       |       |       |       |
| CU0010 | ITYPE    | 03306 | 03504 | 05007 |       |       |
| CU0012 | ITYPEK   |       |       |       |       |       |
| CU0000 | ITYPEX   | 04561 | 04562 |       |       |       |
| CU0030 | IWH      | 03627 |       |       |       |       |
| CU0030 | IWH01    | 04475 |       |       |       |       |
| CU0010 | IWH02    | 04477 |       |       |       |       |
| CU0000 | IWH03    | 04434 | 04435 |       |       |       |
| CU0206 | IWHX     |       |       |       |       |       |
| CU0412 | INTYP    | 03432 | 03433 |       |       |       |

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|        |         |       |       |       |
|--------|---------|-------|-------|-------|
| C00010 | IZIT    |       |       |       |
| C00004 | IZN     |       |       |       |
| P02716 | .1      | 03662 |       |       |
| P04641 | .10     | 02702 |       |       |
| P04720 | .100001 | 02711 |       |       |
| P04721 | .100002 |       |       |       |
| P04642 | .11     | 04717 |       |       |
| P04646 | .110    | 02712 |       |       |
| P04846 | .111    | 04644 | 04645 |       |
| P04735 | .112    |       |       |       |
| P04734 | .113    | 04763 |       |       |
| P04744 | .1140   | 04720 |       |       |
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| P04735 | .116    | 04645 |       |       |
| P04713 | .117    |       |       |       |
| P04764 | .112    | 02712 |       |       |
| P05054 | .1200   | 05025 | 05033 | 05052 |
| P05023 | .125    |       |       |       |
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| PU4120 .7       | 02707 |       |  |  |  |  |  |  |  |
| PU4131 .71      |       |       |  |  |  |  |  |  |  |
| PU4140 .72      | U4127 | U4130 |  |  |  |  |  |  |  |
| PU4162 .74      |       |       |  |  |  |  |  |  |  |
| PU4214 .76      |       |       |  |  |  |  |  |  |  |
| PU4220 .8       | 02707 |       |  |  |  |  |  |  |  |
| PU4250 .82      |       |       |  |  |  |  |  |  |  |
| PU4301 .84      |       |       |  |  |  |  |  |  |  |
| PU4306 .86      | U4305 |       |  |  |  |  |  |  |  |
| PU4322 .87      | U4305 |       |  |  |  |  |  |  |  |
| PU4333 .9       | U4710 |       |  |  |  |  |  |  |  |
| PU4635 .922     |       |       |  |  |  |  |  |  |  |
| PU4510 .93      |       |       |  |  |  |  |  |  |  |
| PU5324 .9315    |       |       |  |  |  |  |  |  |  |
| PU5326 .9320    | 05322 | 05323 |  |  |  |  |  |  |  |
| PU5331 .9325    |       |       |  |  |  |  |  |  |  |
| PU5333 .9327    | 05327 | 05330 |  |  |  |  |  |  |  |
| PU5354 .9340    |       |       |  |  |  |  |  |  |  |
| PU5357 .9350    |       |       |  |  |  |  |  |  |  |
| PU5451 .9360    |       |       |  |  |  |  |  |  |  |
| PU5501 .9370    |       |       |  |  |  |  |  |  |  |
| PU4444 .98      |       |       |  |  |  |  |  |  |  |
| PU5571 .ERASER. | 03554 | 03555 |  |  |  |  |  |  |  |
| PU0066 .010     | 02735 |       |  |  |  |  |  |  |  |
| PU1230 .0100000 | U4007 |       |  |  |  |  |  |  |  |
| PU1231 .0100001 | U4013 |       |  |  |  |  |  |  |  |
| PU1374 .0100002 | U4162 |       |  |  |  |  |  |  |  |
| PU1375 .0100003 | U4165 |       |  |  |  |  |  |  |  |
| PU1376 .0100004 | U4167 |       |  |  |  |  |  |  |  |
| PU1441 .0100005 | U4250 |       |  |  |  |  |  |  |  |
| PU1442 .0100006 | U4253 |       |  |  |  |  |  |  |  |
| PU0233 .011     | U4007 |       |  |  |  |  |  |  |  |
| PU2170 .0111C   | U4857 |       |  |  |  |  |  |  |  |
| PU2251 .0114    | U4740 |       |  |  |  |  |  |  |  |
| PU2261 .01145   | U4747 |       |  |  |  |  |  |  |  |
| PU2163 .01177   | U4651 |       |  |  |  |  |  |  |  |
| PU2221 .0118    | U4701 |       |  |  |  |  |  |  |  |
| PU2233 .0118C   | U4724 |       |  |  |  |  |  |  |  |
| PU2176 .0119    | U4671 |       |  |  |  |  |  |  |  |
| PU0244 .012     | U4025 |       |  |  |  |  |  |  |  |
| PU2320 .0120    | U4775 |       |  |  |  |  |  |  |  |
| PU2402 .0121    | U5057 |       |  |  |  |  |  |  |  |
| PU2406 .0122    | U5074 |       |  |  |  |  |  |  |  |
| PU2414 .0123    | U5112 |       |  |  |  |  |  |  |  |
| PU2422 .0124    | U5130 |       |  |  |  |  |  |  |  |
| PU0254 .013     | U4043 |       |  |  |  |  |  |  |  |
| PU2430 .0135    | U5151 |       |  |  |  |  |  |  |  |
| PU0264 .014     | U3001 |       |  |  |  |  |  |  |  |
| PU0275 .0142    | U3077 |       |  |  |  |  |  |  |  |
| PU0306 .0144    | U3115 |       |  |  |  |  |  |  |  |
| PU0317 .0146    | U3133 |       |  |  |  |  |  |  |  |
| PU2437 .01477   | U3164 |       |  |  |  |  |  |  |  |
| PU0330 .0148    | U3151 |       |  |  |  |  |  |  |  |
| PU0341 .015     | U3167 |       |  |  |  |  |  |  |  |

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| C00000 | MHMIN    |       |       |       |       |       |       |       |       |       |       |
| C00000 | MHMINA   |       |       |       |       |       |       |       |       |       |       |
| C00024 | MHMIN    |       |       |       |       |       |       |       |       |       |       |
| C00025 | MHMK     |       |       |       |       |       |       |       |       |       |       |
| C01120 | MHT      |       |       |       |       |       |       |       |       |       |       |
| P05624 | MIN      |       |       |       |       |       |       |       |       |       |       |
| P05625 | MISIND   |       |       |       |       |       |       |       |       |       |       |
| P00054 | MLK      |       |       |       |       |       |       |       |       |       |       |
| C05170 | MGUNT    |       |       |       |       |       |       |       |       |       |       |
| C00004 | MSLTPE   |       |       |       |       |       |       |       |       |       |       |
| C00025 | Mt       |       |       |       |       |       |       |       |       |       |       |
| C00002 | MYCORR   |       |       |       |       |       |       |       |       |       |       |
| C00003 | MYCORR   |       |       |       |       |       |       |       |       |       |       |
| C00001 | MYGROUP  |       |       |       |       |       |       |       |       |       |       |
| C00002 | MYGROUP  |       |       |       |       |       |       |       |       |       |       |
| P05626 | MYGRHC   |       |       |       |       |       |       |       |       |       |       |
| P05627 | MZERC    |       |       |       |       |       |       |       |       |       |       |
| P05630 | NADEC    |       |       |       |       |       |       |       |       |       |       |
| C00500 | NADECCYS |       |       |       |       |       |       |       |       |       |       |
| C00023 | NALERT   |       |       |       |       |       |       |       |       |       |       |
| C00005 | NALRTK   |       |       |       |       |       |       |       |       |       |       |
| P00003 | NAMCOR   |       |       |       |       |       |       |       |       |       |       |
| P00030 | NAMES    |       |       |       |       |       |       |       |       |       |       |
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| C00016 | NASMTYPE |       |       |       |       |       |       |       |       |       |       |
| C00010 | NBNDRY   |       |       |       |       |       |       |       |       |       |       |
| C00022 | NCLASS   |       |       |       |       |       |       |       |       |       |       |
| C00360 | NCH      |       |       |       |       |       |       |       |       |       |       |
| C00020 | NCHS     |       |       |       |       |       |       |       |       |       |       |
| C00026 | NCNTRY   |       |       |       |       |       |       |       |       |       |       |
| C00021 | NCOMPLEX |       |       |       |       |       |       |       |       |       |       |
| C00004 | NCONH    |       |       |       |       |       |       |       |       |       |       |
| C00025 | NCONTYPE |       |       |       |       |       |       |       |       |       |       |
| C01130 | NCONA    |       |       |       |       |       |       |       |       |       |       |
| P05631 | NDEC     |       |       |       |       |       |       |       |       |       |       |
| C00430 | NDECCYS  |       |       |       |       |       |       |       |       |       |       |
| C00005 | NOPEN    |       |       |       |       |       |       |       |       |       |       |
| C00454 | NEXTCNE  |       |       |       |       |       |       |       |       |       |       |
| C00013 | NHGROUP  |       |       |       |       |       |       |       |       |       |       |
| C00013 | NHAP     |       |       |       |       |       |       |       |       |       |       |
| C00012 | NHAPC    |       |       |       |       |       |       |       |       |       |       |
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| C01321 | NPL      |       |       |       |       |       |       |       |       |       |       |
| C00030 | NPLAN    |       |       |       |       |       |       |       |       |       |       |

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07135 07138 07141 07144 07147 07150 07153 07156 07159 07162

07165 07168 07171 07174 07177 07180 07183 07186 07189 07192

07195 07198 07201 07204 07207 07210 07213 07216 07219 07222

07225 07228 07231 07234 07237 07240 07243 07246 07249 07252

07255 07258 07261 07264 07267 07270 07273 07276 07279 07282

07285 07288 07291 07294 07297 07300 07303 07306 07309 07312

07315 07318 07321 07324 07327 07330 07333 07336 07339 07342

07345 07348 07351 07354 07357 07360 07363 07366 07369 07372

07375 07378 07381 07384 07387 07390 07393 07396 07399 07402

07405 07408 07411 07414 07417 07420 07423 07426 07429 07432

07435 07438 07441 07444 07447 07450 07453 07456 07459 07462

07465 07468 07471 07474 07477 07480 07483 07486 07489 07492

07495 07498 07501 07504 07507 07510 07513 07516 07519 07522

07525 07528 07531 07534 07537 07540 07543 07546 07549 07552

07555 07558 07561 07564 07567 07570 07573 07576 07579 07582

07585 07588 07591 07594 07597 07600 07603 07606 07609 07612

07615 07618 07621 07624 07627 07630 07633 07636 07639 07642

07645 07648 07651 07654 07657 07660 07663 07666 07669 07672

07675 07678 07681 07684 07687 07690 07693 07696 07699 07702

07705 07708 07711 07714 07717 07720 07723 07726 07729 07732

07735 07738 07741 07744 07747 07750 07753 07756 07759 07762

07765 07768 07771 07774 07777 07780 07783 07786 07789 07792

07795 07798 07801 07804 07807 07810 07813 07816 07819 07822

07825 07828 07831 07834 07837 07840 07843 07846 07849 07852

07855 07858 07861 07864 07867 07870 07873 07876 07879 07882

07885 07888 07891 07894 07897 07900 07903 07906 07909 07912

07915 07918 07921 07924 07927 07930 07933 07936 07939 07942

07945 07948 07951 07954 07957 07960 07963 07966 07969 07972

07975 07978 07981 07984 07987 07990 07993 07996 07999 08002

08005 08008 08011 08014 08017 08020 08023 08026 08029 08032

08035 08038 08041 08044 08047 08050 08053 08056 08059 08062

08065 08068 08071 08074 08077 08080 08083 08086 08089 08092

08095 08098 08101 08104 08107 08110 08113 08116 08119 08122

08125 08128 08131 08134 08137 08140 08143 08146 08149 08152

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P05065 TS00040. 05061  
 P05103 TS00041. 05076  
 P05121 TS00042. 05114  
 P05137 TS00043. 05132  
 P05360 TS00044. 05230  
 P05355 TS00045. 05254  
 P05502 TS00046. 05424  
 P05477 TS00047. 05450  
 C00011 TTOS  
 C01034 TZN  
 C02354 TZX  
 C00702 TZY  
 C02222 TZTX  
 C00000 U1 03775  
 C00002 U2 04000  
 C00004 UAT 04002  
 P05514 UP00003. 05510  
 C00001 V1 03777  
 C00003 V2 04001  
 C00005 VAT 04003  
 P02775 W500001. 03001  
 P03012 W500002. 03017  
 P03030 W500003. 03035  
 P03046 W500004. 03053  
 P03064 W500005. 03071  
 P03102 W500006. 03107  
 P03120 W500007. 03125  
 P03136 W500010. 03143  
 P03154 W500011. 03161  
 P03172 W500012. 03177  
 P03210 W500013. 03215  
 P03226 W500014. 03233  
 P03244 W500015. 03251  
 P03330 W500016. 03352  
 P03370 W500017. 03413  
 P03430 W500020. 03441  
 P03572 W500021. 03637  
 P04074 W500022. 04116  
 P04162 W500023. 04164  
 P04173 W500024. 04216  
 P04250 W500025. 04252  
 P04260 W500026. 04303  
 P04405 W500027. 04413  
 P04426 W500030. 04446  
 P04465 W500031. 04512  
 P04521 W500032. 04527  
 P04540 W500033. 04546  
 P04557 W500034. 04565  
 P04576 W500035. 04604  
 P04617 W500036. 04637  
 P04676 W500037. 04715  
 P05062 W500040. 05066  
 P05077 W500041. 05104  
 P05115 W500042. 05122

03775 03775  
 04000 04030  
 05510 05516  
 03777 05517  
 04001 05520  
 04003 05522  
 03001 05522  
 03017 05522  
 03035 05522  
 03053 05522  
 03071 05522  
 03107 05522  
 03125 05522  
 03143 05522  
 03161 05522  
 03177 05522  
 03215 05522  
 03233 05522  
 03251 05522  
 03352 05522  
 03413 05522  
 03441 05522  
 03637 05522  
 04116 05522  
 04216 05522  
 04303 05522  
 04413 05522  
 04446 05522  
 04512 05522  
 04527 05522  
 04546 05522  
 04565 05522  
 04604 05522  
 04637 05522  
 04715 05522  
 05066 05522  
 05104 05522  
 05122 05522

## S-4TS      SNAPSHOT

|        |          |       |       |
|--------|----------|-------|-------|
| P05133 | MS00043. | 05140 | 05140 |
| P05231 | MS00044. | 05361 | 05361 |
| P05255 | MS00045. | 05356 | 05356 |
| P05425 | MS00046. | 05503 | 05503 |
| P05451 | MS00047. | 05500 | 05500 |
| C00000 | X1       | 03655 | 03655 |
| C00002 | X2       | 03660 |       |
| C00360 | XDEC     | 04503 |       |
| C00426 | XDGZ     | 04334 |       |
| C00005 | XR       | 03746 | 03746 |
| CC0001 | Y1       | 03657 |       |
| CC0003 | Y2       | 03661 |       |
| C00442 | YDGZ     | 03435 |       |
| C00006 | YR       | 03750 |       |
| C00459 | ZDGZ     | 03436 |       |
| C00000 | ZLAT1    | 03673 |       |
| C00050 | ZLAT2    | 03675 |       |
| C00024 | ZLON1    | 03674 |       |
| C00074 | ZLON2    | 03676 |       |

01261 SYMBOLS

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```

SUBROUTINE SWITCHALY
  CSUBR SWITCHALY ZUECTO *****
  C CHANGE CHANGEALY TO GCHI ON GCLC *****
  CUSE DINDATA ZUECTO *****
  C COMPCN/DINDATA/HOT(90),KPL(90),JTP(90),HLA(90),TLC(90),TZT(90),
  ITZN(90),PA(90),MHT,NPL *****
  C DINDATA *****
  CEND EVENTS *****
  CUSE COMMON/EVENTS/LAUNCH,LAUNCH,LEFUEL,INSECTOR,LOC,LAT,LAUNCHM
  **LAUNCH,LOC,LAUNCH, LCH,MISSAT,LESCUG,LABORT,LENTREF,LEAVEREF
  **IGCHI,IGCLC *****
  CEND EVENTS *****
  DIMENSION IGO(2)
  IGO(1) = IGCHI
  IGO(2) = IGCLC
  IFY = 1
  MIN = NPL*2
  DO 820 I = MIN,MHT
    JTP1 = JTP(I)
    IF(JTP1.EQ.LCH1/802,820
  802 IF(IIFY)803,804
  803 IFY=0 $ GC TO 805
  804 IFY=1
  805 JTP(I)=IGO(IIFY+1)
  820 CONTINUE
    RETURN
  END

```

SATS SWITCHALY

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

SWITCHALY

DIRECTA  
EVENTS

EXTERNAL SYMBOLS

ORDDICT.

IDENT

U0056  
U0005  
U1322  
U0020

SWITCHALY

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|                  |       |       |       |       |
|------------------|-------|-------|-------|-------|
| P00045 BEGIN.    | 00046 |       |       |       |
| P00051 COURT.    | 00024 | 00025 |       |       |
| P00001 DICT.     | 00007 |       |       |       |
| P00047 ENDING.   | 00010 | 00044 | 00045 | 00046 |
| P00000 EXIT.     | 00050 |       |       |       |
| C00000 HDT       |       |       |       |       |
| C00416 HLA       |       |       |       |       |
| C00550 HLC       |       |       |       |       |
| P00052 I         | 00021 | 00024 |       |       |
| P00053 IFY       | 00015 | 00032 |       |       |
| P00003 IGO       | 00012 | 00014 | 00035 | 00040 |
| C00016 IGOMI     | 00013 | 00013 |       |       |
| C00017 IGOLCM    | 00011 | 00011 |       |       |
| P00045 INITIAL.  | 00010 |       |       |       |
| C00033 INSECTOR  |       |       |       |       |
| P00032 .802      |       |       |       |       |
| P00034 .803      | 00033 |       |       |       |
| P00036 .804      | 00033 |       |       |       |
| P00040 .805      | 00035 |       |       |       |
| P00043 .820      | 00031 |       |       |       |
| C00264 JTP       | 00026 | 00026 | 00041 | 00042 |
| P00054 JTP1      | 00027 |       |       |       |
| C00132 KPL       |       |       |       |       |
| C00013 LABORT    |       |       |       |       |
| C00007 LADMC     |       |       |       |       |
| C00005 LAUMASH   |       |       |       |       |
| C00001 LAUMB     |       |       |       |       |
| C00006 LAUNDCGY  |       |       |       |       |
| C00000 LAUNH     |       |       |       |       |
| C00015 LEAYEREF  |       |       |       |       |
| C00012 LEGGCG    |       |       |       |       |
| C00014 LENTEREF  |       |       |       |       |
| C00002 LEREFEL   |       |       |       |       |
| C00004 LOCLATTN  |       |       |       |       |
| C00010 LOMI      | 00030 |       |       |       |
| C01320 .MT       | 00021 |       |       |       |
| P00055 MIN       | 00020 | 00020 | 00023 |       |
| C00011 MISSATTN  |       |       |       |       |
| C01321 NPL       | 00016 | 00016 |       |       |
| C01166 PA        |       |       |       |       |
| X00001 000DICT.  | 00000 | 00006 |       |       |
| P00005 SWITCHALY | 00005 |       |       |       |
| P00044 T500001.  | 00023 |       |       |       |
| C01034 TZN       |       |       |       |       |
| C00702 TZT       |       |       |       |       |
| P00026 WS00001.  | 00043 |       |       |       |
| 00056 SYMBCLS    |       |       |       |       |



```

C SUBROUTINE TIMELNCH
C   TIMELNCH 16FEB71 *****
C   THIS ROUTINE COMPUTES LAUNCH TIMES AND ASSIGNS SPECIFIC FIXED
C   WEAPONS TO SPECIFIC TARGETS
C
C   WPNGRPX 16FEB71 *****
C   COMMON /WPNGRPX/ ITYPEX(200),DBLX(200)
C   DIMENSION MGRGUP = MAX NUM WEAPON GROUPS
C   WPNGRPX *****
C   PLANTYPE 2DEC70 *****
C   COMMON/PLANTYPE/INITSRK,CCORSL,CCORBNB
C   CCORBNB = THE DISTANCE(NON) FROM THE CORRIDOR ENTRY POINT
C   AT TIME = 0
C   PLANTYPE *****
C   BLOCK 16FEB71 *****
C   COMMON/BLOCK/ LOCK(320)
C   DIMENSION BLOCK(320)
C   EQUIVALENCE (LOCK, BLOCK)
C   BLOCK *****
C   TIMELINE 16FEB71 *****
C   COMMON/TIMELINE/ ITIMETYP(40), CORMSLX(40), FLTMIN(40)
C   1, INDEXFIX(1000), TIME(1000), TDATA(252), ZLAT(50,2), ZLON(50,2)
C   2, XC(50), YC(50), ZC(50), DL(50), TMLNCH(18), GOLD
C   3, NFIXWPS, NLEFT, NLINES, MSLFIL(5)
C   TYPE INTEGER GSAVE, GOLD
C   TYPE LOGICAL IFIXFLAG
C   EQUIVALENCE (GSAVE, MSLFIL(1)), (INDEXSAVE, MSLFIL(2))
C   EQUIVALENCE (TIME, MSLFIL(5))
C   DIMENSION ITDATA(252)
C   EQUIVALENCE (TDATA, ITDATA)
C   DATA (NLINES = 0), (CORCHK = 32400.), (GOLD = 0)
C   DATA (TWOP1 = 0.2831823070), (CR = 0.01745359252)
C   TIMELINE *****
C   TYPE LOGICAL IFIXFLAG
C
C   ITIMETYP = CORMSLX TYPE = 0 - PERCENT FLIGHT, = 1 - TIME ON LINE
C   CORMSLX = PERCENT FLIGHT COMPLETE AT T=0. OR TIME IN HOURS ON LINE
C   FLTMIN = MINIMUM FLIGHT TIME IN MINUTES
C   INDEXFIX = TARGET INDEXES FOR FIXED WEAPONS
C   TIME = ARRIVAL TIMES FOR FIXED WEAPONS
C   TDATA = TEMPORARY STORAGE FOR FLIGHT DATA
C   ZLAT = LATITUDE OF LINE SEGMENT ENDPOINTS
C   ZLON = LONGITUDE OF LINE SEGMENT ENDPOINTS
C   ZMLNCH = SPLIT LONGITUDE OF SEGMENT ENDPOINTS
C   TMLNCH = LAUNCH TIME
C   GOLD = GROUP NUMBER OF SAVED DATA PRESENTLY IN CORE
C   GSAVE = GROUP NUMBER OF NEXT SET OF DATA ON MSLTIME FILE
C   MFIXWPS = ORIGINAL NUMBER OF FIXED WEAPONS FROM GROUP GOLD
C   IFIXFLAG = 0 = NO FIXED WEAPONS THIS GROUP, = 1 - FIXED WEAPONS
C   NLEFT = NUMBER OF UNALLOCATED FIXED WEAPONS FROM GROUP GOLD
C   NLINES = NUMBER OF TIME COORDINATION LINES
C   MSLFIL = INPUT AREA FOR MSLTIME FILE
C   *****
C   TYPE REAL LATEST, LONTEST

```

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```

C      N = LOCK(18)
C      MISINDEX = JSTART = IFIXAR = 0
C
C      MISINDEX MISSILE INDEX CURRENTLY UNDER CONSIDERATION
C      JSTART LOCAL INDEX OF FIRST TARGET IN FOOTPRINT
C      IFIXAR  = 0 = NO FIXED TARGET WITH TIME YET ON THIS MISSILE
C
C      IFIXFLAG = 0
C      IF (LOCK(3) .EQ. 62LD .AND. NLEFT .GT. 0) 10, 20
C      10 IFIXFLAG = 1
C      20 IT = ITYPEX(LOCK(3))
C      DC 9999 J = 1, N
C      IDATA(90+J) = MAXIF(IDATA(90+J), FLTMIN(IT))
C      IF (IDATA(J) = MISINDEX) 50, 30, 50
C
C      LATER MV ON MISSILE NUMBER MISINDEX. CHECK TO SEE IF THERE IS A
C      FIXED TARGET WITH TIME ALREADY PROCESSED
C
C      30 ASSIGN 40 TO NEXTST
C      IF (IFIXAR) 60, 60, 40
C
C      ALREADY A FIX WITH TIME
C
C      40 TMLNCH(J) = TMLNCH(JSTART)
C      GC TO 9999
C
C      NEW MISSILE INDEX
C
C      50 MISINDEX = IDATA(J)
C      JSTART = J
C      IFIXAR = 0
C      ASSIGN 2050 TO NEXTST
C      60 IF (IFIXFLAG) 1000, 2000
C
C      THIS IS A POTENTIAL FIXED WEAPON
C
C      1000 DC 1100 K = 1, NFIXPS
C      IF (IDATA(36+J) .EQ. INDEXFIX(K)) 1200, 1100
C      1100 CONTINUE
C      GC TO 2000
C      1200 INDEXFIX(K) = -1
C      NLEFT = NLEFT - 1
C      IF (TIME(K) .LT. -10.E+3) 2000, 1300
C      1300 FT = TDATA(90+J)
C      AT = TIME(K)/60.
C      TMLNCH(J) = AT - FT
C      TMLNCH = TMLNCH(J)
C      DC 1400 K = JSTART, J
C      1400 TMLNCH(K) = TMLNCH
C      IFIXAR = 1
C      GC TO 9999
C
C      NON-FIXED WEAPON
C
C      2000 GC TO NEXTST

```

2050 IF (INITSTRK.EV. 2 .OR. LOCK(12) .EV. 2 .OR.

1 CORMSLA(IT) .LT. -10.E+3) 2100, 2200

2100 TMLNCH(J) = WLOCK(4)

60 TO 9999

2200 IF (TIMETYP(IT)) 2300, 3000

C

C TIME ON LINE

C

2300 ALPHA2 = 1.0

C

C COMPUTE PERPENDICULAR TO PLANE OF FLIGHT PATH

C

AD1 = TWOP1 - CR \* TDATA(126 \* J)

AU2 = TWOP1 - CR \* TDATA(162 \* J)

OL1 = TDATA(108 \* J) \* CR

DL2 = TDATA(144 \* J) \* CR

CUS = CGSF(OL1)

R11 = CGSF(AD1) \* CUS

R12 = SINF(AD1) \* CUS

R13 = SINF(OL1)

CUS = CGSF(DL2)

R21 = CGSF(AU2) \* CUS

R22 = SINF(AU2) \* CUS

A23 = SINF(DL2)

XCF = R23 \* R12 - R13 \* R22

YCF = R21 \* R13 - R11 \* R23

ZCF = R11 \* R22 - R12 \* R21

C

C COMPUTE LINE OF INTERSECTION

C

DC 2500 L = 1, NLINES

XCR = ZCF \* YC(L) - ZC(L) \* YCF

YCR = XCF \* ZC(L) - XC(L) \* ZCF

ZCR = YCF \* XC(L) - YC(L) \* XCF

DENOM = XCR \* XCR + YCR \* YCR + ZCR \* ZCR

UENOM = SORTF(UENOM)

XCR = XCR / DENOM

YCR = YCR / DENOM

ZCR = ZCR / DENOM

LATEST = ASINF(ZCR) / CR

LCNTEST = (TWOP1 - ATN2PI(YCR, XCR)) / CR

BETA = DISTF(ZLAT(L,1),ZLONG(L,1),LATEST,LCNTEST)

IF (BETA .LT. DL(L)) 2310, 2500

2310 BETA2 = DISTF(ZLAT(L,2),ZLONG(L,2),LATEST,LCNTEST)

BETA = BETA \* BETA2

DT = DL(L) \* 1.

IF (BETA .LT. DT) 2320, 2500

2320 REACH = DISTF(TDATA(108\*J),TDATA(126\*J),TDATA(144\*J),TDATA(162\*J))

ALPHA1 = DISTF(TDATA(108\*J),TDATA(126\*J),LATEST,LCNTEST)

ALPHA = ALPHA1 / REACH

IF (ALPHA .LT. ALPHA1) 2330, 2500

2330 ALPHA2 = DISTF(TDATA(144\*J),TDATA(162\*J),LATEST,LCNTEST)

ALPHA1 = ALPHA1 + ALPHA2

REACH = REACH \* 1.

IF (ALPHA1 .LT. REACH) 2400, 2500

C

90000  
91000  
92000  
93000  
94000  
95000  
96000  
97000  
98000  
99000  
100000  
101000  
102000  
103000  
104000  
105000  
106000  
107000  
108000  
109000  
110000  
111000  
112000  
113000  
114000  
115000  
116000  
117000  
118000  
119000  
120000  
121000  
122000  
123000  
124000  
125000  
126000  
127000  
128000  
129000  
130000  
131000  
132000  
133000  
134000  
135000  
136000  
137000  
138000  
139000  
140000  
141000  
142000  
143000  
144000  
145000

FTN5.5

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C LINE CROSSING CLOSER TO LAUNCH
C 2400 ALPHA = ALPHA
2500 CONTINUE
IF (ALPHA - 1.0) 2000, 2510
C NO LINE CROSSING
C 2510 TMLNCH(J) = -TDATA(90*J)
GC TO 9999
C LINE CROSSING
C 2600 TMLNCH(J) = CORMSLX(11) - (ALPHA * TDATA(90*J))
GC TO 9999
C CORMSLX IS PERCENT OF FLIGHT PATH COMPLETE AT T = 0.0
C 3000 TMLNCH(J) = -CORMSLX(11) * TDATA(90*J)
9999 CONTINUE
RETURN
END
146000
147000
148000
149000
150000
151000
152000
153000
154000
155000
156000
157000
158000
159000
160000
161000
162000
163000
164000
165000
166000
167000

```

IDENT TIMELNCH

U0612  
U0U05  
U0620  
U0U03  
U0500  
U5311

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES  
TIMELNCH  
WPNMXP  
PLANITYE  
BLOCK  
TIMELINE

EXTERNAL SYMBOLS  
Q3U1U040  
Q3U0U040  
Q3U0U040  
Q3U0U040  
ATN2PI  
DISTF  
SQRTF  
SINF  
MAXIF  
COSF  
ASINF

# 5.4TS TIMELNCH

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|                 |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|
| P00543 AD1      | 00204 | 00227 | 00233 |       |       |       |       |
| P00544 AD2      | 00212 | 00245 | 00251 |       |       |       |       |
| P00545 ALPHA    | 00435 | 00461 |       |       |       |       |       |
| P00546 ALPHA1   | 00434 | 00454 | 00454 | 00456 |       |       |       |
| P00547 ALPHA2   | 00453 | 00454 |       |       |       |       |       |
| P00550 ALPHAST  | 00177 | 00435 | 00462 | 00464 | 00500 |       |       |
| P00512 ASINF    | 00336 |       |       |       |       |       |       |
| P00551 AT       | 00136 |       |       |       |       |       |       |
| X00004 AIN2PI   | 00441 |       |       |       |       |       |       |
| P00527 BEGIN.   | 00530 |       |       |       |       |       |       |
| P00552 BETA     | 00354 | 00366 | 00367 | 00372 |       |       |       |
| P00553 BETA2    | 00366 | 00367 |       |       |       |       |       |
| C00000 BLACK    | 00166 |       |       |       |       |       |       |
| C00002 COR8CPB  |       |       |       |       |       |       |       |
| P00003 CORCHK   |       |       |       |       |       |       |       |
| C00001 CORMSL   |       |       |       |       |       |       |       |
| C00002 CORMSLX  |       |       |       |       |       |       |       |
| X00011 COSF     | 00163 | 00163 | 00504 | 00513 | 00513 |       |       |
| P00554 CGUN1.   | 00225 | 00230 | 00243 | 00246 |       |       |       |
| P00005 CR       | 00144 | 00145 | 00276 | 00277 |       |       |       |
| P00555 CUS      | 00201 | 00207 | 00216 | 00223 | 00340 | 00345 |       |
| C00310 DBLX     | 00227 | 00232 | 00236 | 00245 | 00250 | 00254 |       |
| P00556 DECM     | 00326 | 00331 | 00332 | 00333 | 00435 |       |       |
| P00001 DICT.    | 00010 | 00052 | 00226 | 00231 | 00241 | 00244 | 00330 |
| X00005 DISTF    | 00337 | 00342 | 00351 | 00363 | 00241 | 00253 | 00257 |
| C05174 DL       | 00350 | 00362 | 00414 | 00430 | 00415 | 00431 |       |
| P00557 DLI      | 00217 | 00224 | 00237 | 00270 | 00415 | 00431 |       |
| P00560 DL2      | 00224 | 00242 | 00255 | 00370 | 00415 | 00431 |       |
| P00561 DT       | 00372 | 00373 | 00527 | 00530 | 00415 | 00431 |       |
| P00531 ENDING.  | 00011 | 00523 |       |       |       |       |       |
| P00000 EXIT.    | 00532 |       |       |       |       |       |       |
| C00052 FLTAIA   | 00047 | 00533 |       |       |       |       |       |
| P00562 FT       | 00133 | 00137 |       |       |       |       |       |
| C05300 GLO      | 00004 | 00022 | 00022 |       |       |       |       |
| C05304 GSAVE    |       |       |       |       |       |       |       |
| P00024 IF00001. |       |       |       |       |       |       |       |
| P00160 IF00002. |       |       |       |       |       |       |       |
| P00162 IF00003. |       |       |       |       |       |       |       |
| P00526 IFIXFLAG | 00020 | 00431 | 00101 | 00152 |       |       |       |
| P00563 IFIXTAR  | 00014 | 00063 | 00076 | 00122 |       |       |       |
| C00122 IMDXFIX  | 00112 | 00112 | 00121 |       |       |       |       |
| P00527 INITIAL. | 00011 |       |       |       |       |       |       |
| C00000 INITSTRK | 00156 | 00156 |       |       |       |       |       |
| P00564 IT       | 00036 | 00047 | 00162 | 00172 | 00503 | 00512 |       |
| C04042 ITDATA   | 00056 | 00057 | 00073 | 00073 | 00110 | 00110 |       |
| C00000 ITIMEYIP | 00174 |       |       |       |       |       |       |
| C00000 IYPEX    | 00035 | 00035 |       |       |       |       |       |
| P00103 -1000    | 00102 |       |       |       |       |       |       |
| P00027 -10      |       |       |       |       |       |       |       |
| P00114 -1100    | 00113 |       |       |       |       |       |       |
| P00120 -1200    | 00113 |       |       |       |       |       |       |
| P00127 -1300    | 00125 |       |       |       |       |       |       |
| P00146 -1400    |       |       |       |       |       |       |       |



SATS TIMELNCH

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| P00576 R13      | 00261 | 00264 | 00457 | 00132 | 00202 | 00203 | 00210 | 00215 |
| P00577 R21      | 00250 | 00263 | 00271 | 00407 | 00411 | 00416 | 00417 | 00417 |
| P00600 R22      | 00262 | 00267 |       | 00444 | 00445 | 00472 | 00472 | 00501 |
| P00601 R23      | 00265 | 00455 | 00456 | 00455 | 00455 | 00451 |       |       |
| P00602 REACH    | 00420 | 00432 | 00256 | 00432 | 00432 | 00451 |       |       |
| X00007 SINP     | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| X00006 SURTF    | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| C04042 TDATA    | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| C02072 TIME     | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00006 TIMELNCH | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| C05310 TIMESAVE | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00003 TLNCH    | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| C05256 TLNCH    | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00521 TS00001. | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00115 TS00002. | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00151 TS00003. | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00464 TS00004. | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00004 TWCP1    | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00041 WS00001. | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00105 WS00002. | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00146 WS00003. | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00300 WS00004. | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| C04746 XC       | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00504 XCF      | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00505 XCR      | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| C05030 YC       | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00506 YCF      | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00607 YCR      | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| C05112 ZC       | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00610 ZCF      | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| P00611 ZCR      | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| C04736 ZLAT     | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| C04602 ZLONG    | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |
| 00206 SYNCHOLS  | 00434 | 00432 |       | 00432 | 00432 | 00451 |       |       |



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1010 IPRINT=40
1011 PRINT 1020
1020 FORMAT(1H1)
1025 DO 1025 I=1,NMAX
1025 PRINT 1006, (COST(I,J),J=21,IPRINT)
1030 PRINT 1031
1031 FORMAT(1H1)
1032 DO 1032 I=1,NMAX
1032 PRINT 1006, (COST(I,J),J=41,CMAX)
1033 ILMAX=MPAX
1033 IF (CMAX.GT.NMAX) 1040,1041
1040 ILMAX=CMAX
1041 PRINT 1042
1042 FORMAT(1H1)
1042 DO 1050 I=1,ILMAX
1042 PRINT 1043,I
1043 FORMAT(1H1,10X,3M I=,15)
1043 IF (I.LE.NMAX) 1044,1047
1044 PRINT 1045,SOURCE(I)
1045 FORMAT(1H1,25X,11H SOURCE(11=,15)
1047 IF (I.LE.CMAX) 1048,1050
1048 PRINT 1049,SINK(I)
1049 FORMAT(1H1,4X,9H SINK(1)=,15)
1050 CONTINUE
C GET ROW PENALTIES, SAVE LOCATION OF SMALLEST COST IN ROW
700 IUCV=4HUCTH
NROW=MAX=1HCU1F
NCL=CMAX
7 IF (IUCV.NE.3HRCW.CH.IUCV.EQ.4HUCTH) 8,35
8 DO 33 I=1,NMAX
ACRDER(1)=RCVDER(2)=1000000
IF (IRCM(1).EQ.1) 33,9
9 DO 32 J=1,CMAX
IF (ICCR(J).EQ.1) 32,9000
9000 IF (NCL.EQ.1) 9001,900
9001 RPENAL(1)=COST(1,J)
IRCM(1,1)=J
IRCM(1,2)=1
60 TC 33
900 IF (RCRDER(1)=COST(1,J)) 130,20,10
10 RCRDER(2)=RCRDER(1)
RCRDER(1)=COST(1,J)
IRCM(1,2)=IRCM(1,1)
IRCM(1,1)=J
60 TC 32
20 RCRDER(2)=COST(1,J)
IRCM(1,2)=J
60 TC 32
30 IF (COST(1,J).LT.RCRDER(2)) 31,32
31 RCRDER(2)=COST(1,J)
IRCM(1,2)=J
32 CONTINUE
RPENAL(1)=RCRDER(2)=RCRDER(1)
33 CONTINUE
C GET COLUMN PENALTIES, SAVE LOCATION OF SMALLEST COST IN COLUMN

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35 IF (IDCCVR.EQ.6H COLUMN OR IDCCVR.EQ.4H GOTH) 36,69
36 DO 63 J=1,CMAX
   CORDER(1)=CORDER(2)=1000000
   IF (ICCHK(J).EQ.1) 63,37
37 DO 62 I=1,RMAX
   IF (IRCHK(I).EQ.1) 62,3800
3800 IF (NRCH(EQ.1) 3801,38
3801 RMAX=J
   RPENAL(K)=COST(I,J)
   ICCL(J,1)=I
   ICCL(J,2)=--1
62 TO 63
38 IF (CORDER(1) = COST(I,J)) 60,50,40
40 CORDER(2) = CORDER(1)
   CORDER(1) = COST(I,J)
   ICCL(J,2) = ICCL(J,1)
   ICCL(J,1) = I
60 TO 62
50 CORDER(2) = COST(I,J)
   ICCL(J,2) = I
60 TO 62
60 IF (COST(I,J) < I.CORDER(2)) 61,62
61 CORDER(2) = COST(I,J)
   ICCL(J,2) = I
62 CONTINUE
   K = RMAX+J
   RPENAL(K) = CORDER(2) = CORDER(1)
63 CONTINUE
   C FIND LARGEST OF ROW AND COLUMN PENALTIES
69 PENMAX=C
   INDEX=0
   IALL=RMAX+CMAX
   DO 90 I=1,IALL
   KL=I-RMAX
   IF (KL.GT.0) 90,95
690 IF (ICCHK(KL).EQ.1) 90,75
695 IF (IRCHK(I).EQ.1) 90,75
75 IF (PENMAX = RPENAL(I)) 70,80,90
70 PENMAX = RPENAL(I)
   INDEX=I
   PENTIE(1) = I
60 TO 90
80 INDEX = INDEX+1
   PENTIE(INDEX) = I
90 CONTINUE
   IF (INDEX.GT.1) 200,100
100 IF (PENTIE(1).GT.RMAX) 110,130
110 COL = PENTIE(1)-RMAX
   ROW = ICCL(COL,1)
60 TO 139
130 ROW = PENTIE(1)
   COL=ICCL(PENTIE(1), 1)
139 IBASIS = IBASIS+1
   RBASISLOC(IBASIS) = ROW
   CBASISLOC(IBASIS) = COL
   IF (SOURCE(ROW) = SINK(COL)) 160,140,140

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C 140 SATISFY COLUMN
      IDCOVER = 3*RCW
      ISCL(IBASIS) = SINK(COL)
      SOURCE(RC) = SOURCE(RCW) - SINK(COL)
      SINK(COL) = 0
      ELIMINATE COLUMN FROM FURTHER COMPUTATIONS
      NCCL=NCCL-1
      ICCHK(COL) = 1
      GO TO 170
C 160 SATISFY ROW
      IDCOVER = 6*NCCL
      ISCL(IBASIS) = SOURCE(RCW)
      SINK(COL) = SINK(COL) - SOURCE(RCW)
      SOURCE(RCW) = 0
      ELIMINATE ROW FROM FURTHER COMPUTATIONS
      RCW=RCW-1
      IRCHK(RCW) = 1
      IF (IBASIS.EQ.RMAX.CMAX-1-1*CDIF)300,7
      2 OR MORE PENALTIES ARE TIED
C 200 002601=1,INDEX
      IF (PENTIE(I).GT.RMAX)251,201
      ROW IN TIE
C 201 IF (COST(ICOL(ICW(PENTIE(I)-1)),IRCW(PENTIE(I),1)).EQ.
      *COST(PENTIE(I),IRCW(PENTIE(I),1)))202,260
C 202 RCW = PENTIE(I)
      COL = IRCW(PENTIE(I),1)
      GO TO 139
C 251 COLUMN IN TIE
      MPENT=PENTIE(I)-RMAX
      IF (COST(ICOL(MPENT,1),IRCW(ICOL(MPENT,1),1)).EQ.
      *COST(ICOL(MPENT,1),MPENT))252,260
C 252 COL=MPENT
      RCW=ICOL(MPENT,1)
      GO TO 139
C 260 CONTINUE
      TIE NOT YET BROKEN
      IF (PENTIE(I).GT.RMAX)270,261
C 251 RCW = PENTIE(I)
      COL = IRCW(PENTIE(I),1)
      GO TO 139
C 270 COL = PENTIE(I)-RMAX
      RCW=ICOL(COL,1)
      GO TO 139
C 300 PRINT 400
      400 FORMAT(///,13H VAN SOLUTION,/)
      NSCL = RMAX.CMAX-1-1*CDIF
      ITCOST=C
      DC402I=1,NSCL
      ITCOST=ITCOST+ISCL(I)*COST(RBASLCC(I),CBASLCC(I))
      402 PRINT 401,RBASLCC(I),CBASLCC(I),ISCL(I)
      401 FORMAT(3H X(12,14,12,4H) = ,13)
      403 PRINT 403,ITCOST
      403 FORMAT(14H TOTAL COST = ,110)
      404 RETURN
      END

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SATS

VAP

IDENT VAM

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

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EXTERNAL SYMBOLS

Q3010040  
THEEND.  
Q3000040  
Q800101.  
STR.  
QNSINGL.

5.ATS

VAM

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C00000 ARTIME  
 C00227 ARVLS  
 P02303 BEGIN.  
 C06320 CBASLCC  
 C06500 CMAX  
  
 P02253 CNVRT1.  
 P02247 CCL  
  
 P00425 CORDER  
 C00000 CCST  
  
 P02320 CCUNT.  
 P00763 CCFMT.  
 P00001 CICT.  
  
 C06504 DISTREF  
 P02305 ENDING.  
 P00000 EXT.  
 C06566 FILLR  
 P00753 FORMAT.  
 P01205 G000000.  
 P01241 G000001.  
 P01264 G000002.  
 P01311 G000003.  
 P01325 G000004.  
 P01332 G000005.  
 P01373 G000006.  
 P01407 G000007.  
 P01423 G000010.  
 P01436 G000011.  
 P02171 G000012.  
 P02230 G000013.  
 P02244 G000014.  
 P02321 I  
  
 P02322 IALL  
 C00227 IARVLS  
 P02323 IBASIS  
 P00065 ICCMR  
 P00017 ICCL  
  
 P02324 IDCCMR  
 P01452 IF00001.  
 P01556 IF00002.  
 P02325 ILMAX

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| P02254 | IN000C3. | 01230    | 01300 | 01502 | 01511    | 01515 |
| P03326 | INDEX    | 01624    | 01632 | 01637 | 01643    | 01643 |
| P03303 | INITIAL. | 01666    | 01721 | 01723 | 01724    | 01731 |
| P02327 | IPRINT   | 01121    | 01213 | 01235 | 01246    | 01255 |
| C05503 | IRCDIF   | 01206    | 02027 | 02173 | 02023    | 02023 |
| C05501 | IRCHK    | 01444    | 01601 | 01711 | 01521    | 01527 |
| P00427 | IRCW     | 01506    | 01507 | 01520 | 01521    | 01527 |
| C05764 | ISCL     | 02104    | 02116 | 02154 | 02011    | 02011 |
| P02330 | ITCOST   | 01771    | 01771 | 02011 | 02011    | 02011 |
| P01514 | .10      | 02175    | 02213 | 02214 | 02210    | 02225 |
| P01734 | .100     | 01732    | 01733 |       |          |       |
| P01212 | .1001    |          |       |       |          |       |
| P01214 | .1002    | 01210    | 01211 |       |          |       |
| P01420 | .1005    |          |       |       |          |       |
| P01251 | .1009    |          |       |       |          |       |
| P01254 | .1010    |          |       |       |          |       |
| P01256 | .1011    | 01252    | 01253 |       |          |       |
| P01270 | .1025    |          |       |       |          |       |
| P01317 | .1030    |          |       |       |          |       |
| P01331 | .1032    |          |       |       |          |       |
| P01356 | .1033    | 01250    | 01250 | 01316 | 01316    |       |
| P01363 | .1040    |          |       |       |          |       |
| P01365 | .1041    | 01361    | 01362 |       |          |       |
| P01412 | .1044    | 01411    |       |       |          |       |
| P01423 | .1047    | 01411    |       |       |          |       |
| P01426 | .1048    | 01425    |       |       |          |       |
| P01436 | .1050    | 01425    |       |       |          |       |
| P01737 | .110     |          |       |       |          |       |
| P01744 | .130     | 01736    | 01736 | 02136 | 02155    | 02162 |
| P01753 | .139     | 01743    | 02105 |       |          |       |
| P01766 | .140     | 01764    | 01765 |       |          |       |
| P02005 | .160     | 01765    |       |       |          |       |
| P02024 | .170     | 02004    |       |       |          |       |
| P01523 | .20      | 01512    |       |       |          |       |
| P02031 | .200     | 01733    |       |       |          |       |
| P02041 | .201     | 02037    | 02040 |       |          |       |
| P02076 | .202     |          |       |       |          |       |
| P02106 | .251     | 02040    |       |       |          |       |
| P02133 | .252     |          |       |       |          |       |
| P02137 | .260     | 02075    | 02132 |       |          |       |
| P02146 | .261     | 02144    | 02145 |       |          |       |
| P02156 | .270     | 02145    |       |       |          |       |
| P01530 | .30      | 01513    |       |       |          |       |
| P02163 | .300     | 02030    |       |       |          |       |
| P01534 | .31      |          |       |       |          |       |
| P01541 | .32      | 01477    | 01522 | 01527 | 01533    | 01533 |
| P01550 | .33      | 01466    | 01507 |       |          |       |
| P01554 | .35      | 01453    |       |       |          |       |
| P01560 | .36      | 01555    |       |       |          |       |
| P01573 | .37      | 01571    |       |       |          |       |
| P01604 | .3800    | 01602    |       |       |          |       |
| P01617 | .38      | 01605    |       |       |          |       |





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| P02333 KL        | 02275 | 01612 | 01655 | 01657 |       |       |       |       |       |       |       |
| P02334 MPENT     | 01610 | 01701 | 01703 |       |       |       |       |       |       |       |       |
| C00063 MBCHREF   | 02111 | 02114 | 02122 | 02132 | 02134 |       |       |       |       |       |       |
| C00062 MBUDREF   | 01127 | 01127 |       |       |       |       |       |       |       |       |       |
| P02335 NCOL      | 01447 | 01500 | 01777 | 02000 |       |       |       |       |       |       |       |
| P02336 NROW      | 01445 | 01604 | 02017 | 02020 |       |       |       |       |       |       |       |
| C06476 NSOL      | 02173 | 02232 | 02232 |       |       |       |       |       |       |       |       |
| C00145 NTANKREF  | 02257 |       |       |       |       |       |       |       |       |       |       |
| P02255 P00000.0  | 02272 |       |       |       |       |       |       |       |       |       |       |
| P02267 P00001.0  | 01665 |       |       |       |       |       |       |       |       |       |       |
| P02251 PENMAX    | 01722 | 01720 | 01734 | 01737 | 01744 | 01750 | 02036 | 02044 | 02052 | 02063 | 02070 |
| P00247 PENTIE    | 02077 | 02102 | 02107 | 02143 | 02146 | 02152 | 02156 |       |       |       |       |
| X00063 Q3000040  | 01463 | 01474 | 01567 | 01600 | 01704 | 01710 |       |       |       |       |       |
| X00001 C3310040  | 01132 | 02002 | 02022 |       |       |       |       |       |       |       |       |
| X00004 Q8Q01CT.  | 00000 | 01117 |       |       |       |       |       |       |       |       |       |
| X00006 QNSINGL.  | 02252 | 01756 | 02205 | 02206 | 02222 | 02222 |       |       |       |       |       |
| C06142 RBASLOC   | 01756 | 01141 | 01243 | 01243 | 01313 | 01313 | 01354 | 01354 | 01356 | 01356 | 01361 |
| C06477 RMAX      | 01141 | 01410 | 01443 | 01444 | 01552 | 01552 | 01506 | 01506 | 01552 | 01552 | 01554 |
|                  | 01666 | 01667 | 01677 | 01677 | 01735 | 01735 | 01740 | 01740 | 02025 | 02025 | 02036 |
| P00067 RORDER    | 02037 | 02107 | 02110 | 02143 | 02144 | 02157 | 02157 | 02171 | 02171 | 02171 | 01546 |
| P02250 RCM       | 01461 | 01461 | 01510 | 01514 | 01515 | 01517 | 01525 | 01532 | 01536 | 01545 |       |
| P00071 RPENAL    | 01743 | 01745 | 01755 | 01761 | 01772 | 02006 | 02077 | 02135 | 02147 | 02162 |       |
| P00003 SINK      | 01505 | 01547 | 01613 | 01657 | 01715 | 01717 |       |       |       |       |       |
| C05670 SOURCE    | 01130 | 01161 | 01176 | 01433 | 01764 | 01770 | 01774 | 01777 | 02013 | 02015 | 02007 |
|                  | 01146 | 01146 | 01417 | 01417 | 01762 | 01762 | 01773 | 01773 | 01775 | 01775 |       |
| X00005 STM.      | 02007 | 02013 | 02014 | 02016 | 02016 |       |       |       |       |       |       |
|                  | 01200 | 01221 | 01257 | 01271 | 01320 | 01332 | 01366 | 01400 | 01413 | 01427 | 02164 |
|                  | 02216 | 02235 |       |       |       |       |       |       |       |       |       |
| X00002 THEND.    | 01203 | 01237 | 01262 | 01307 | 01323 | 01350 | 01371 | 01405 | 01421 | 01434 | 02167 |
|                  | 02226 | 02242 |       |       |       |       |       |       |       |       |       |
| P01151 TS00002.  | 01142 |       |       |       |       |       |       |       |       |       |       |
| P01163 TS00003.  | 01155 |       |       |       |       |       |       |       |       |       |       |
| P01243 TS00004.  | 01217 |       |       |       |       |       |       |       |       |       |       |
| P01235 TS00005.  | 01227 |       |       |       |       |       |       |       |       |       |       |
| P01313 TS00006.  | 01267 |       |       |       |       |       |       |       |       |       |       |
| P01305 TS00007.  | 01277 |       |       |       |       |       |       |       |       |       |       |
| P01354 TS00010.  | 01330 |       |       |       |       |       |       |       |       |       |       |
| P01346 TS00011.  | 01340 |       |       |       |       |       |       |       |       |       |       |
| P01440 TS00012.  | 01376 |       |       |       |       |       |       |       |       |       |       |
| P01552 TS00013.  | 01457 |       |       |       |       |       |       |       |       |       |       |
| P01543 TS00014.  | 01472 |       |       |       |       |       |       |       |       |       |       |
| P01662 TS00015.  | 01563 |       |       |       |       |       |       |       |       |       |       |
| P01652 TS00016.  | 01576 |       |       |       |       |       |       |       |       |       |       |
| P01731 TS00017.  | 01674 |       |       |       |       |       |       |       |       |       |       |
| P02141 TS00020.  | 02034 |       |       |       |       |       |       |       |       |       |       |
| P02232 TS00021.  | 02200 | 01160 | 01161 | 01167 | 01174 |       |       |       |       |       |       |
| P02245 TSINK     | 01136 | 01145 | 01147 | 01163 | 01166 | 01173 | 01312 | 01327 | 01353 | 01375 | 01437 |
| P02246 TSRC      | 01136 | 01140 | 01153 | 01216 | 01242 | 01266 |       |       |       |       |       |
| P02261 UP000000. | 01125 |       |       |       |       |       |       |       |       |       |       |

| 5.4TS  | VAM           | 11/24/71 | ED    | 9     | PAGE NO. | 10    |
|--------|---------------|----------|-------|-------|----------|-------|
| P02274 | UP000001.     | 01575    | 01651 | 02033 | 02140    | 02177 |
| P01116 | VAM           | 02266    | 02266 | 01337 | 01471    | 01542 |
| P01127 | WS000001.     | 02277    | 02301 | 01345 | 01562    | 01661 |
| P01145 | WS000002.     |          |       |       |          | 02270 |
| P01160 | WS000003.     |          |       |       |          |       |
| P01220 | WS000004.     |          |       |       |          |       |
| P01230 | WS000005.     |          |       |       |          |       |
| P01270 | WS000006.     |          |       |       |          |       |
| P01300 | WS000007.     |          |       |       |          |       |
| P01331 | WS000010.     |          |       |       |          |       |
| P01341 | WS000011.     |          |       |       |          |       |
| P01377 | WS000012.     |          |       |       |          |       |
| P01460 | WS000013.     |          |       |       |          |       |
| P01473 | WS000014.     |          |       |       |          |       |
| P01564 | WS000015.     |          |       |       |          |       |
| P01577 | WS000016.     |          |       |       |          |       |
| P01676 | WS000017.     |          |       |       |          |       |
| P02035 | WS000020.     |          |       |       |          |       |
| P02201 | WS000021.     |          |       |       |          |       |
|        | 00316 SYMSCLS |          |       |       |          |       |

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SUBROUTINE ZONECRGS
  CSUBR      ZONECRGS  ZDEC70
  C  ZONECRGS FINDS ALL ZONE CROSSINGS BETWEEN
  C  TWO POINTS IN ORDER AND POSTS THEM
  CUSE      BOUND  BOUND/X1,Y1,X2,Y2,IZN,XR,YR,NLN,IZIT
  CEND      BOUND  *****
  CUSE      CONTROL  ZDEC70 *****
  C  COMMON/CONTROL/ICE,LSIDE,NPLCT,ISZE,SCALE
  C  CONTROL *****
  C  DINDATA  ZDEC70 *****
  C  COMMON/DINDATA/HUT(90),KPL(90),JTP(90),MLA(90),MLG(90),TZT(90),
  C  ITZN(90),PA(90),MHT,MPL
  C  DINDATA *****
  C  EVENTS  ZDEC70 *****
  C  COMMON/EVENTS/LAUNB,LAUNB,LEREFUEL,INSECTOR,LOCCLATR,LAUNASH
  C  *LAUNGCCY,LANDMG, LCH,MISSATN,LEGDS,LABORT,LENTREF,LEAVEREF
  C  *IGHCHI,IGCLG *****
  C  EVENTS *****
  C  FINGZONE  ZDEC70 *****
  C  COMMON/FINGZONE/FINGLAT,FINGLCN,IFGUMQZN
  C  FINGZONE *****
  C  IFLEDPEN  ZDEC70 *****
  C  COMMON/IFLEDPEN/IFLEDPEN,LOWZONE,ICIFLW
  C  IFLEDPEN *****
  C  DIMENSION IJUP(10),ITLA(10),ITLC(10),ITPL(10)
  C  TYPE REAL IJLA, ITLC
  C  IF(IZN)1*8
  C  1 CALL BOUNDARY
  C  IF(IZIT.EQ.0)16*2
  C  2 IF(INZN.EQ.0)3*4
  C  3 IF(IFLEDPEN):17
  C  7 LEZONE=LSIDE
  C  IFLEDPEN*2
  C  ASSIGN 6 TO I6G
  C  GO TO 5
  C  LEZONE=NZN
  C  ASSIGN 1 TO I6G
  C  5 MHT=MHT+1
  C  MLC(MHT)=YR
  C  JTP(MHT)=INSECTOR
  C  KPL(MHT)=LEZONE
  C  IZMZN $ X1=XN $ Y1=YR
  C  GO TO I6G
  C  *NUMBER HAS DEGENERATED OR NOT YET ENTERED A ZONE
  C  8 IF(IFLEDPEN):17
  C  C  REVERSE VECTOR TO FIND POSSIBLE INSECTORS
  C  17 FINDLAT=X2
  C  FINDLON=Y2
  C  CALL FINGZONE
  C  IZN=IFOUNZLN
  C  IF(IZN)16*20
  C  C  LOWZONE SET TO 1 AT CALCULATED GO LOW
  C  C  LOWZONE SET TO 2 IF GO LOW PRECEDES FIRST INSECTOR
  C  C  LOWZONE SET TO 3 TO MOVE GO LOW POSTING TO SUBR ZONECRGS

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20 IF (LOWZONE.EQ.3)21,22
22 LOWZONE=2
21 RETURN
16 X2=X1
Y2=Y1
A1=FINULAT
V1=FINULON
I=0
11 CALL BOUNDARY
I=I+1
IF (I.GT.10)14,15
14 PRINT 15
15 FORMAT(38HMORE THAN 10 ZONES FOUND AFTER ZONE U)
I=10
GO TO 13
15 IILA(I) = XX
IILG(I)=YH
IIPLI(I)=IZN
XI=XR
YI=YH
IF (NZN.EQ.0)9,10
10 IZN=NZN
GO TO 11
9 IZN=IFOUNDZN
X2=FINULAT
Y2=FINULON
IF (LOWZONE.EQ.3)25,26
25 LOWZONE = 0
MHT=MHT+1
JTP(MHT) = INSECTOR
MLA(MHT) = A = IILA(I)
MLC(MHT) = B = IILG(I)
KPL(MHT) = IPL(I)
CALL POST17(A,B,0)
CALL POSTLAUN(2,MHT,1)
I = I+1
26 IF (I)13,6
13 IF (IC1FLG)18,19
C POST POSSIBLE DECOY LAUNCH AT FIRST CORRIDOR 1 INSECTOR
18 LMT=MHT+1
CALL POSTLAUN(5,LMT,1)
IC1FLG=C
C POST INSECTOR EVENTS
19 DO 12 J=1,I
K=I-J+1
MHT=MHT+1
JIP(MHT) = INSECTOR
MLA(MHT)=IILA(K)
MLC(MHT)=IILG(K)
KPL(MHT)=IPL(K)
12 6 RETURN
END

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5.4TS ZONECROS

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ED 0

PAGE NO.

3

IDENT ZONECROS

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

00343  
00063

ZONECROS

BOUND  
CONTROL  
DIRDATA  
EVENTS  
FINDZONE  
IFLGUPEN

EXTERNAL SYMBOLS

THEND.  
UBGDICT.  
BOUNDARY  
FINDZONE  
POST17  
POSTLAUN  
SIM.

SATS ZONECROS

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|------------------|----------|-------|---|----------|
| P00332 A         | 00236    | 00247 |   |          |
| P00333 B         | 00241    | 00247 |   |          |
| P00332 BEGIN.    | 00323    |       |   |          |
| P00333 BOUNDARY  | 00071    | 00164 |   |          |
| P00334 COUNT.    | 00277    | 00277 |   |          |
| P00353 CREMT.    | 00200    |       |   |          |
| P00301 DICT.     | 00065    | 00072 |   |          |
| P00324 ENDING.   | 00066    | 00153 |   |          |
| P00000 EXIT.     | 00325    |       |   |          |
| C00000 FINDLAT   | 00137    | 00156 |   |          |
| C00001 FINDLON   | 00141    | 00161 |   |          |
| X00004 FINDZONE  | 00142    | 00223 |   |          |
| P00053 FORMAT.   |          |       |   |          |
| P00200 GROUND00. | 00172    |       |   |          |
| C00000 MOT       |          |       |   |          |
| C00016 HLA       | 00117    | 00237 |   |          |
| C00550 HLO       | 00120    | 00241 |   |          |
| P00335 I         | 00163    | 00166 |   |          |
|                  | 00300    |       |   |          |
| C00002 ICIFLG    | 00261    | 00272 |   |          |
| C00000 ICE       |          |       |   |          |
| C00000 IFLGDEM   | 00100    | 00100 |   |          |
| C00002 IFGROZM   | 00144    | 00217 |   |          |
| P00336 IGO       | 00106    | 00112 |   |          |
| C00016 IGOMI     |          |       |   |          |
| C00017 IGLON     |          |       |   |          |
| P00322 INITIAL.  | 00066    |       |   |          |
| C00003 INSECTOR  | 00121    | 00122 |   |          |
| C00003 ISZE      |          |       |   |          |
| P00003 ITJP      |          |       |   |          |
| P00015 ITLA      | 00204    | 00236 |   |          |
| P00027 ITLO      | 00206    | 00240 |   |          |
| P00041 ITPL      | 00210    | 00243 |   |          |
| C00010 IZIT      | 00073    | 00073 |   |          |
| C00004 IZN       | 00067    | 00126 |   |          |
| P00071 .1        | 00070    | 00067 |   |          |
| P00215 .10       | 00214    | 00112 |   |          |
| P00164 .11       | 00216    |       |   |          |
| P00314 .12       |          |       |   |          |
| P00261 .13       | 00201    |       |   |          |
| P00172 .14       |          |       |   |          |
| P00202 .15       | 00171    | 00171 |   |          |
| P00154 .16       | 00145    |       |   |          |
| P00136 .17       | 00101    |       |   |          |
| P00263 .18       | 00262    |       |   |          |
| P00274 .19       | 00262    |       |   |          |
| P00076 .2        | 00074    |       |   |          |
| P00146 .20       |          |       |   |          |
| P00153 .21       | 00150    |       |   |          |
| P00151 .22       | 00147    |       |   |          |
| P00227 .25       |          |       |   |          |
| P00257 .26       | 00226    |       |   |          |
| P00100 .3        |          |       |   |          |
| P00110 .4        | 00077    |       |   |          |

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|                 |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|
| PG0113 .5       | 00107 |       |       |       |       |
| PG0321 .6       | 00075 | 00105 | 00135 | 00260 |       |
| PG0102 .7       | 00101 |       |       |       |       |
| PG0134 .8       | 00070 |       |       |       |       |
| PG0217 .9       | 00214 |       |       |       |       |
| PG0053 .15      | 00175 |       |       |       |       |
| PG0437 J        | 00275 | 00301 | 00317 |       |       |
| PG0264 JTP      | 00122 | 00123 | 00234 | 00306 |       |
| PG0340 K        | 00302 | 00307 | 00314 |       |       |
| PG0132 KPL      | 00124 | 00125 | 00243 | 00244 | 00316 |
| PG0013 LABCR    |       |       |       |       |       |
| PG0007 LANDHC   |       |       |       |       |       |
| PG0005 LAUNASH  |       |       |       |       |       |
| PG0001 LAUN3    |       |       |       |       |       |
| PG0006 LAUNDCOY |       |       |       |       |       |
| PG0000 LAUNM    |       |       |       |       |       |
| PG0015 LEAVEREF |       |       |       |       |       |
| PG0012 LEGOC6   |       |       |       |       |       |
| PG0014 LENTEREF |       |       |       |       |       |
| PG0002 LEREFUEL |       |       |       |       |       |
| PG0341 LEZONE   | 00103 | 00111 | 00124 |       |       |
| PG0342 LHT      | 00265 | 00270 |       |       |       |
| PG0004 LCCLATTR |       |       |       |       |       |
| PG0010 LCHI     | 00146 | 00146 | 00151 | 00152 | 00225 |
| PG0001 LCWZONE  | 00102 | 00102 |       |       | 00227 |
| PG0001 LSIDE    | 00113 | 00113 | 00114 | 00116 | 00230 |
| PG01320 MHT     | 00263 | 00263 | 00302 | 00303 | 00231 |
| PG0011 MISSATIR |       |       |       |       | 00306 |
| PG0321 NPL      |       |       |       |       | 00232 |
| PG0002 NPLCT    |       |       |       |       | 00315 |
| PG0007 NZN      | 00076 | 00076 | 00110 | 00110 | 00215 |
| PG0166 PA       |       |       |       |       | 00213 |
| PG0005 PCST17   | 00245 |       |       |       | 00215 |
| PG0006 PCSTLAUN | 00251 | 00266 |       |       | 00215 |
| PG0002 QBODICT  | 00000 | 00064 |       |       | 00211 |
| PG0004 SCALE    |       |       |       |       |       |
| PG0007 SK.      | 00173 |       |       |       |       |
| PG0001 TMEND.   | 00176 |       |       |       |       |
| PG0321 TS00001. | 00276 |       |       |       |       |
| PG0034 TZN      |       |       |       |       |       |
| PG0702 TZT      |       |       |       |       |       |
| PG0300 WS00001. | 00320 |       |       |       |       |
| PG0000 X1       | 00127 | 00154 | 00154 | 00157 | 00211 |
| PG0002 X2       | 00136 | 00136 | 00155 | 00222 | 00222 |
| PG0005 XR       | 00115 | 00127 | 00127 | 00202 | 00210 |
| PG0001 Y1       | 00130 | 00155 | 00161 | 00162 | 00211 |
| PG0003 Y2       | 00140 | 00140 | 00156 | 00224 | 00212 |
| PG0006 YR       | 00117 | 00120 | 00130 | 00204 | 00212 |
| PG0063 ZONECROS | 00063 |       |       |       |       |
| PG0146 SYMBCL5  |       |       |       |       |       |

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PROGRAM EVALALOC
EVALALOC 15JUN71 *****
C
C IF THE TARGET AND
C WEAPON MODIFIER SUBROUTINES ARE NOT USED, 3 INPUT CARDS CONTAIN
C THE FOLLOWING DATA ARE REQUIRED.
C CARD ONE
C ITGTMAX THE NUMBER OF TARGETS TO HAVE DETAILED PRINTS
C PREFABRT PROBABILITY OF A REFUELING ABORT (POST-PLNTPLAN OPER)
C JOPT LOGICAL ARRAY CONTROLLING PROGRAM OPERATION AND PRINTS
C JOPT(1) PRE-ALOCUT OR POST-PLNTPLAN RUN INDICATOR
C          0 = PRE-ALOCUT
C          1 = POST-PLNTPLAN
C JOPT(3) DEBUG PRINT INDICATOR
C          0 = NORMAL PRINTS
C          1 = DEBUG PRINTS
C PKTX KILL PROBABILITY OF TERMINAL BALLISTIC MISSILE INTERCEPT
C LAW DAMAGE ASSESSMENT LAW TO BE USED (SQUAREROOT OR EXPONENT)
C CARD TWO
C PUT THE WORD #RETURNS IN COLS. 1-8
C CARD THREE
C TO TERMINATE RUN PUT NEG INTEGER IN COLS. 1-8. TO CONT RUN WITH NEW
C TARGET OR WEAPON PARAMETERS, SEE TGTMODIF OR WPMODIF.
CUSE FILHANDR 15JUN71 *****
C
C FILEHANDLER COMMON BLOCKS
C
C COMMON/FILABEL/INIDENT,INRUNNO,INDATE,INFORM,INSECR,
C 1 INTIME,INLNSTH,INCOX(5)
C COMMON/ITP/ITP
C COMMON/MYIDENT/MYIDENT
C COMMON/MYLABEL/MYFORMAT,MYSECR,MVNLNTH,MVCOM(3)
C COMMON/NOPRINT/NOPRINT
C COMMON/TWORD/TWORD
C EQUIVALENCE (TWORD,TWORD)
C
C FILHANDR *****
C FILES 10MAY71 *****
C
C COMMON/FILES/TGTFILE(2),BASFILE(2),MSLTIME(2),ALOCAR(2),
C 1 TMAPLOC(2),ALOCBP(2),STKRFIL(2),EVENTAPE,PLANTAPE
C TYPE INTEGER TGTFILE, BASFILE, MSLTIME, ALOCAR, TMAPLOC,
C 1 ALOCBP, STKRFIL, EVENTAPE, PLANTAPE, SCRATCH
C EQUIVALENCE (SCRATCH,STKRFIL)
C
C FILES *****
CUSE 22 00CT71 *****
C
C COMMON/2/LINK,ILINK(12000)
C DIMENSION JLINK(4000),KLINK(4000),LLINK(4000)
C EQUIVALENCE (JLINK,ILINK), (KLINK,ILINK(4001)), (LLINK,ILINK(8001))
C
C 22 *****
CUSE TGTMOD 24JUN71 *****
C DATA FROM ALOCAR FILE

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13 CONTINUE
11 FORMAT(//10X,42N THE TERMINAL MISSILE INTERCEPTORS HAVE PK#,F10.6)
C
  CALL PAGESKP
  INITIALIZE FILEHANDLER
  MYIDENT=8HEVALALOC
  NOPRINT=1
  CALL INITAPE
  BASFILE(1)=8
  ITP = BASFILE(1)
  MYIDENT=7MBASFILE
  CALL SETREAD
C
  IS BASFILE VERSION THE EXPECTED ONE
  ITSTBSFL=8HMOV TO
  IF(INFORM.NE.ITSTBSFL)15,17
15 PRINT 16,ITSTBSFL,INFORM
16 FORMAT(//1X,15(IN),5X,33H WRONG BASFILE FORMAT. REQUESTED ,A6,
  1 5H GOT ,A6)
  STOP
C
C INPUT NEEDED DATA FROM BASFILE
C
17 CALL ROARRAY(IDUM,23)
  NTYPES=IDUM(11)
  CALL SKIP(545)
  CALL ROARRAY(TOTFILE,16)
  SCRATCH=5
  IF(JOYT(1))C,7
  READ MORE ARRAYS FROM BASFILE IF PROG IN POST-PLATPLAN MORE
C
  6 CALL STIP(2104)
  CALL ROARRAY(REL,80)
  CALL SKIP(1320)
  CALL ROARRAY(ITYPE,206)
  CALL SKIP(7067)
  CALL ROARRAY(DBL,200)
  CALL TERMTAPE
  CALL PACK
  GO TO 5
7 CALL TERMTAPE
5 CALL EVAL2
  GO TO 1
END

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S-4TS EVALALOC

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

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IDENT EVALALOC

|          |       |
|----------|-------|
| EVALALOC | 00403 |
|          | 00141 |
| FILABEL  | 00014 |
| ITP      | 00001 |
| MYIDENT  | 00001 |
| MYLABEL  | 00010 |
| NOPRINT  | 00001 |
| TRORD    | 00001 |
| FILES    | 00020 |
| 2        | 27341 |
| TGTMOD   | 00346 |
| WPNMOD   | 01442 |
| MIS      | 00122 |
| OPT      | 00004 |
| LAW      | 00002 |

EXTERNAL SYMBOLS

Q00ENTRY  
THEND.  
Q00STOPS  
Q000040  
Q00DICT.  
VEVALALOC  
STORAGE  
PAGESKP  
INITAPE  
SETREAD  
RDARRAY  
SKIP  
TERMTAPE  
PACK  
EVAL2  
TSH.  
SYH.  
SLI4.  
SLO.  
SLI.  
ONSINGL.

## 5.4TS EVALALOC

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|        |          |       |       |       |       |       |       |       |       |
|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| C00012 | ALOCGRP  | 00262 | 00263 |       |       |       |       |       |       |
| C00006 | ALOCYAR  |       |       |       |       |       |       |       |       |
| C00002 | BASEFILE |       |       |       |       |       |       |       |       |
| C00001 | CEP      | 00156 | 00160 | 00222 | 00241 | 00302 | 00304 |       |       |
| P00037 | CHWRT1.  | 00176 | 00225 | 00237 | 00307 |       |       |       |       |
| P00032 | CRFMT.   | 00353 |       |       |       |       |       |       |       |
| C01131 | DBL      |       |       |       |       |       |       |       |       |
| C00245 | DE       |       |       |       |       |       |       |       |       |
| P00001 | DICT.    | 00143 | 00145 | 00147 | 00151 | 00164 | 00172 | 00175 | 00217 |
|        |          | 00224 | 00227 | 00233 | 00236 | 00244 | 00251 | 00261 | 00277 |
|        |          | 00311 | 00313 | 00320 | 00323 | 00333 | 00341 | 00344 | 00355 |
|        |          | 00357 | 00362 | 00364 |       |       |       |       |       |
| P00370 | ENDIMG.  | 00212 |       |       |       |       |       |       |       |
| X00017 | EVALZ    | 00363 |       |       |       |       |       |       |       |
| P00141 | EVALALOC | 00141 |       |       |       |       |       |       |       |
| C00016 | EVENTAPE |       |       |       |       |       |       |       |       |
| P00000 | EXIT.    | 00370 |       |       |       |       |       |       |       |
| P00032 | FORMAT.  | 00176 | 00201 | 00203 | 00254 | 00265 | 00271 |       |       |
| C00501 | FUNC     |       |       |       |       |       |       |       |       |
| C00010 | FVAL     |       |       |       |       |       |       |       |       |
| P00176 | GG00000. | 00152 |       |       |       |       |       |       |       |
| P00225 | GG00001. | 00215 |       |       |       |       |       |       |       |
| P00237 | GG00002. | 00225 |       |       |       |       |       |       |       |
| P00252 | GG00003. | 00242 |       |       |       |       |       |       |       |
| P00307 | GG00004. | 00275 |       |       |       |       |       |       |       |
| C00003 | H        |       |       |       |       |       |       |       |       |
| C00345 | ISGINDX  |       |       |       |       |       |       |       |       |
| C00121 | ICLASS   |       |       |       |       |       |       |       |       |
| P00003 | IDUM     | 00314 | 00315 |       |       |       |       |       |       |
| C00017 | IG       |       |       |       |       |       |       |       |       |
| C00001 | ILINK    |       |       |       |       |       |       |       |       |
| C00007 | INCOMM   |       |       |       |       |       |       |       |       |
| C00002 | INDATE   |       |       |       |       |       |       |       |       |
| C00000 | INDEXNO  |       |       |       |       |       |       |       |       |
| C00342 | INDTYPE  |       |       |       |       |       |       |       |       |
| C00003 | INFORM   | 00272 | 00273 | 00303 | 00303 |       |       |       |       |
| C00000 | INIDENT  |       |       |       |       |       |       |       |       |
| X00011 | INITAPE  | 00260 |       |       |       |       |       |       |       |
| C00006 | INLN6TH  |       |       |       |       |       |       |       |       |
| C00001 | INRUNNO  |       |       |       |       |       |       |       |       |
| C00004 | INSECR   |       |       |       |       |       |       |       |       |
| C00005 | INTIME   |       |       |       |       |       |       |       |       |
| C00344 | ITGINDX  |       |       |       |       |       |       |       |       |
| C00001 | ITGTHAX  | 00157 | 00157 | 00205 | 00205 |       |       |       |       |
| C00000 | ITP      | 00263 | 00264 |       |       |       |       |       |       |
| P00442 | ITST8SFL | 00272 | 00274 | 00301 |       |       |       |       |       |
| C00000 | ITW0RD   |       |       |       |       |       |       |       |       |
| C00021 | ITYPE    | 00345 |       |       |       |       |       |       |       |
| P00152 | .1       | 00365 |       |       |       |       |       |       |       |
| P00242 | .12      |       |       |       |       |       |       |       |       |
| P00252 | .13      | 00241 | 00241 |       |       |       |       |       |       |
| P00275 | .15      |       |       |       |       |       |       |       |       |
| P00312 | .17      | 00274 |       |       |       |       |       |       |       |
| P00225 | .2016    |       |       |       |       |       |       |       |       |

|                 |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|
| P00210 .3       | 00206 |       |       |       |       |       |       |
| P00213 .4       | 00206 | 00237 |       |       |       |       |       |
| P00363 .5       | 00360 |       |       |       |       |       |       |
| P00332 .6       | 00331 |       |       |       |       |       |       |
| P00361 .7       | 00331 |       |       |       |       |       |       |
| P00201 .8       | 00200 |       |       |       |       |       |       |
| P00205 .9       | 00200 |       |       |       |       |       |       |
| P00042 ..10     | 00177 |       |       |       |       |       |       |
| P00045 ..10     | 00220 |       |       |       |       |       |       |
| P00043 ..100001 | 00201 |       |       |       |       |       |       |
| P00044 ..100002 | 00201 |       |       |       |       |       |       |
| P00113 ..100003 | 00234 |       |       |       |       |       |       |
| P00114 ..100004 | 00285 |       |       |       |       |       |       |
| P00115 ..100005 | 00271 |       |       |       |       |       |       |
| P00077 ..11     | 00245 |       |       |       |       |       |       |
| P00062 ..14     | 00230 |       |       |       |       |       |       |
| P00116 ..16     | 00300 |       |       |       |       |       |       |
| P00032 ..2      | 00195 |       |       |       |       |       |       |
| C00001 JLINK    |       |       |       |       |       |       |       |
| C00000 JOPT     | 00165 | 00330 |       |       |       |       |       |
| C00003 JSKIP    |       |       |       |       |       |       |       |
| C07641 KLINK    |       |       |       |       |       |       |       |
| C00055 KRR      |       |       |       |       |       |       |       |
| C00000 LAW      |       |       |       |       |       |       |       |
| C00000 LINK     | 00173 | 00176 | 00176 | 00202 | 00202 | 00204 | 00234 |
| C17501 LLINK    |       |       |       |       |       |       |       |
| C00002 M        |       |       |       |       |       |       |       |
| C00120 MISDEF   |       |       |       |       |       |       |       |
| C00004 MSLTIME  |       |       |       |       |       |       |       |
| C00003 MYCOMM   |       |       |       |       |       |       |       |
| C00000 MYFORMT  |       |       |       |       |       |       |       |
| C00000 MYINENT  |       |       |       |       |       |       |       |
| C00002 MYLWGT   |       |       |       |       |       |       |       |
| C00001 MYSECP   | 00255 | 00255 | 00266 | 00266 |       |       |       |
| C00361 NAMEWPN  |       |       |       |       |       |       |       |
| C00050 NDECOYS  |       |       |       |       |       |       |       |
| C00007 NK       |       |       |       |       |       |       |       |
| C00000 NPRINT   | 00256 | 00257 |       |       |       |       |       |
| C01441 NPASS    |       |       |       |       |       |       |       |
| C00341 NTYPE    |       |       |       |       |       |       |       |
| C00000 NTYPES   | 00316 | 00316 |       |       |       |       |       |
| C00016 NUM      |       |       |       |       |       |       |       |
| C00000 NWINDS   |       |       |       |       |       |       |       |
| X00016 PACK     | 00356 |       |       |       |       |       |       |
| X00010 PAGESKP  | 00213 | 00252 |       |       |       |       |       |
| C00151 PEN      |       |       |       |       |       |       |       |
| C00121 PKTX     | 00167 | 00167 | 00237 | 00246 | 00246 | 00246 |       |
| C00017 PLANTAPE |       |       |       |       |       |       |       |
| C00002 PREFABRT | 00161 | 00221 | 00221 |       |       |       |       |
| X00004 Q000040  | 00327 |       |       |       |       |       |       |
| X00005 Q00005   | 00000 | 00142 |       |       |       |       |       |
| X00001 Q00001   | 00144 |       |       |       |       |       |       |
| X00003 Q00003   | 00211 | 00310 |       |       |       |       |       |
| X00025 Q00025   | 00366 |       |       |       |       |       |       |

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|               |          |       |       |       |       |       |
|---------------|----------|-------|-------|-------|-------|-------|
| X00013        | RDARRAY  | 00312 | 00322 | 00335 | 00343 | 00351 |
| C00241        | REL      | 00337 |       |       |       |       |
| C00113        | RVAL     |       | 00326 |       |       |       |
| C00014        | SCRATCH  | 00325 |       |       |       |       |
| X00012        | SETREAD  | 00267 |       |       |       |       |
| X00014        | SKIP     | 00317 | 00332 | 00340 | 00346 |       |
| X00022        | SLI.     | 00163 |       |       |       |       |
| X00024        | SLI.     | 00171 |       |       |       |       |
| X00023        | SLO.     | 00232 |       |       |       |       |
| X00021        | STM.     | 00216 | 00226 | 00243 | 00276 |       |
| X00007        | STORAGE  | 00150 |       |       |       |       |
| C00014        | STRKFL   |       |       |       |       |       |
| C00013        | TAU      |       |       |       |       |       |
| X00015        | TERMTAPE | 00354 | 00361 |       |       |       |
| C00000        | TGTFILE  | 00324 |       |       |       |       |
| X00002        | THERD.   | 00174 | 00223 | 00235 | 00250 | 00305 |
| C00303        | TIMEVAL  |       |       |       |       |       |
| C00010        | TMPALOC  |       |       |       |       |       |
| C00207        | TOA      |       |       |       |       |       |
| X00020        | TSH.     | 00153 |       |       |       |       |
| C00000        | TWORD    |       |       |       |       |       |
| X00006        | VEVALALO | 00146 |       |       |       |       |
| C00005        | VO       |       |       |       |       |       |
| C00001        | VTO      |       |       |       |       |       |
| C00343        | VTDC     |       |       |       |       |       |
| 00202 SYMBOLS |          |       |       |       |       |       |



PTNS.5

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2

34000  
35000  
36000  
37000

6 PRINT 7,ITGT,INDX,GLAT,GLON,LLINK(I)  
7 FORMAT(1X,25HTGT INDX GLAT GLON LLINK ,2X,218,2F10.4,2X,016)  
8 RETURN  
END



5.4TS BOMRPAKR

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

BOMRPAKR

OPT  
1  
2

EXTERNAL SYMBOLS

G1010100  
G3000040  
THEND.  
QBDDICT.  
SEARCH  
STH.  
GMSINGL.

IDEXT

00276  
00035

00024  
01741  
27341

BOMRPAKR

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5.4TS BOMRPAKR

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0

|        |          |       |       |       |       |       |       |       |                   |
|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------------------|
| P00213 | BEGIN.   | 00227 | 00235 | 00241 |       |       |       |       |                   |
| P00035 | BOMRPAKR | 00035 |       |       |       |       |       |       |                   |
| P00260 | BPLAT    | 00157 |       |       |       |       |       |       |                   |
| P00261 | BPLON    | 00153 |       |       |       |       |       |       |                   |
| C01455 | CMT      | 00074 | 00076 | 00077 |       |       |       |       |                   |
| P00212 | CNVRT1.  | 00123 | 00126 | 00130 | 00131 | 00133 | 00135 | 00200 | 00201 00202 00203 |
|        |          | 00205 |       |       |       |       |       |       |                   |
| P00003 | CRFMT.   | 00140 | 00210 |       |       |       |       |       |                   |
| P00001 | DICT.    | 00037 | 00355 | 00117 | 00137 | 00175 | 00207 | 00216 | 00217             |
| P00230 | ENDING.  | 00040 | 00210 | 00213 | 00214 | 00214 | 00215 | 00215 |                   |
| P00000 | EXIT.    | 00233 |       |       |       |       |       |       |                   |
| P00003 | FORMAT.  |       |       |       |       |       |       |       |                   |
| P00047 | FP00001. | 00225 | 00226 |       |       |       |       |       |                   |
| P00244 | GETPL.   | 00220 |       |       |       |       |       |       |                   |
| P00234 | GETPU.   | 00223 | 00240 |       |       |       |       |       |                   |
| P00140 | GG00000. | 00115 |       |       |       |       |       |       |                   |
| P00210 | GG00001. | 00173 |       |       |       |       |       |       |                   |
| P00262 | SLAT     | 00160 | 00202 |       |       |       |       |       |                   |
| P00263 | GLON     | 00162 | 00203 |       |       |       |       |       |                   |
| C00003 | HDT      |       |       |       |       |       |       |       |                   |
| C00421 | HLA      | 00141 |       |       |       |       |       |       |                   |
| C00553 | HLO      | 00150 |       |       |       |       |       |       |                   |
| P00264 | I        | 00046 | 00066 | 00121 | 00124 | 00163 | 00204 |       |                   |
| C01455 | ICMT     |       |       |       |       |       |       |       |                   |
| C00001 | ILINK    |       |       |       |       |       |       |       |                   |
| P00265 | INDX     | 00053 | 00056 | 00060 | 00126 | 00201 |       |       |                   |
| P00213 | INITIAL. | 00040 |       |       |       |       |       |       |                   |
| P00266 | IPEN     | 00073 | 00104 |       |       |       |       |       |                   |
| P00267 | ITG1     | 00056 | 00057 | 00177 |       |       |       |       |                   |
| C00061 | ITGTMAX  |       |       |       |       |       |       |       |                   |
| C01407 | ITGTX    |       |       |       |       |       |       |       |                   |
| P00270 | ITIME    | 00101 | 00103 | 00105 |       |       |       |       |                   |
| C01171 | IWH      |       |       |       |       |       |       |       |                   |
| P00112 | .1       | 00111 |       |       |       |       |       |       |                   |
| P00115 | .2       | 00114 |       |       |       |       |       |       |                   |
| P00140 | .4       | 00111 | 00114 |       |       |       |       |       |                   |
| P00170 | .5       | 00157 |       |       |       |       |       |       |                   |
| P00173 | .6       | 00172 |       |       |       |       |       |       |                   |
| P00210 | .8       | 00167 | 00172 |       |       |       |       |       |                   |
| P00245 | -ERASER. | 00060 | 00061 | 00062 | 00064 |       |       |       |                   |
| P00003 | .3       | 00120 |       |       |       |       |       |       |                   |
| P00020 | .7       | 00176 |       |       |       |       |       |       |                   |
| P00271 | J        | 00050 |       |       |       |       |       |       |                   |
| C00001 | JLINK    | 00067 | 00067 | 00134 | 00140 |       |       |       |                   |
| C00000 | JOPT     | 00110 | 00166 |       |       |       |       |       |                   |
| C00003 | JSKIP    |       |       |       |       |       |       |       |                   |
| C00267 | JTP      |       |       |       |       |       |       |       |                   |
| P00003 | K        |       |       |       |       |       |       |       |                   |
| C07641 | KLINK    | 00105 | 00106 | 00122 | 00122 |       |       |       |                   |
| C00007 | KORD     | 00065 | 00065 | 00131 |       |       |       |       |                   |
| C00135 | KPL      | 00051 | 00052 |       |       |       |       |       |                   |
| P00272 | LAT      | 00145 | 00146 | 00150 | 00162 |       |       |       |                   |
| C00000 | LGRP     | 00062 | 00063 | 00127 | 00127 |       |       |       |                   |
| C00000 | LINK     | 00042 | 00043 | 00044 | 00112 | 00170 | 00170 | 00170 |                   |

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|        |               |       |       |       |
|--------|---------------|-------|-------|-------|
| C17501 | LLINK         | 00164 | 00204 | 00205 |
| P00003 | LLL           | 00047 |       |       |
| P00272 | LON           | 00155 | 00163 |       |
| P00274 | NMAX          | 00042 | 00171 |       |
| C01323 | PA            | 00070 | 00134 | 00135 |
| P00227 | PF00002.      | 00224 |       |       |
| C00002 | PREFABRT      |       |       |       |
| X00001 | Q1010100      | 00072 | 00144 | 00154 |
| X00002 | Q3000040      | 00107 |       |       |
| X00004 | Q80010.       | 00000 |       |       |
| X00007 | QNSINGL.      | 00211 |       |       |
| X00005 | SEARCH        | 00054 |       |       |
| X00006 | STM.          | 00116 |       |       |
| X00003 | THEND.        | 00130 |       |       |
| P00275 | TIME          | 00075 |       |       |
| C00002 | TMLAUN        |       |       |       |
| C01337 | TZN           | 00151 |       |       |
| C00705 | TZT           | 00142 |       |       |
|        | 00107 SYMBOLS |       |       |       |

FTNS.2

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1

CSUBR  
FUNCTION DIST(TL1,TLON1,TL12,TLON2)  
DIST 28AUG70 \*\*\*\*\*  
DELLAT = (TL1-TL12)  
DELLON = TLON1-TLON2  
DIST = (DELLAT\*\*2+DELLON\*\*2)\*3600.  
END

1000  
7000  
2000  
3000  
4000  
5000

5.4TS DIST

PROGRAM LENGTH  
ENTRY POINTS DIST  
EXTERNAL SYMBOLS Q800ICT.

IDENT

00076  
00003

DIST

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ED

0

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2

2610

5.4TS DIST

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P00023 BEGIN.  
P00074 DELAY  
P00075 BELLOW  
P00001 OICT.  
P00003 DIST.  
P00054 ENDING.  
P00000 EXIT.  
P00007 P00001.  
P00010 P00002.  
P00012 P00003.  
P00013 P00004.  
P00071 GETPL.  
P00061 GETPU.  
P00023 INITIAL.  
P00072 .EPASER.  
P00037 P000032.  
P00043 P000003.  
P00047 P000004.  
P00053 P000005.  
X00001 ODDOICT.  
P00003 TLOM1  
P00003 TLOM2  
P00003 TLT1  
P00003 TLT2  
P00022 VALUE.  
00031 SYMBOIS

00053  
00011  
00014  
00005  
00003  
00006  
00060  
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00045  
00041  
00051  
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00013  
00007  
00010  
00020

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00042  
00052  
00037  
00043  
00017  
00004  
00057

00024 00024 00025 00025

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SUBROUTINE EVALPLAN
  EVALPLAN 30JUNE71 *****
  C
  C EVALPLAN CALCULATES HOW MUCH VALUE ESCAPES DURING THE ATTACK FOR
  C THE DESTROYED TARGET AND HOW MUCH VALUE REMAINS AFTER THE ATTACK.
  C IT ALSO CLASSIFIES WPNS AS ALERT OR NON-ALERT BOMBERS. TACTICAL
  C BOMBERS, ICBMS, SUB-LAUNCHED BMS, OR MED RANGE BMS. RTAC=MRBMAC TO
  C ELIMINATE TAC AND MRBM CATEGORIES.
  C
  CUSE OPT 20APR71 *****
  C
  C USER PRINT AND OPERATION OPTIONS
  C
  C COMMON/OPT/JOPT(20),ITGTMAX,PREFABRT,JSKIP
  C TYPE LOGICAL JOPT
  C
  CEND OPT *****
  CUSE WPNMCD 20APR71 *****
  C
  C DATA FROM BASFILE
  C
  C COMMON/WPNMOD/NTYPES,CEP(80),ICLASS(80),REL(80),NAMEWPN(80),
  C IFUNC(80),ITYPE(200),DBL(200),NPASS
  C
  CEND WPNMCD *****
  CUSE TGTMOD 24JUNE71 *****
  C
  C DATA FROM ALOCTAR FILE
  C
  C COMMON/TGTMOD/INDEXNO,VTG,M(2),VO(2),NK,FVAL(3),TAU(3),NUM,
  C I16(30),KORR(30),RVAL(30),PEN(30),YOA(30),OE(30),TIMEVAL(30),
  C ZMTYPE,INDTYPE,VTGC,ITGTINDX,I8GINDX
  C
  CEND TGTMOD *****
  CUSE LATLON 20APR71 *****
  C
  C COMMON/LATLON/BLAT(30),BLON(30),TGTLAT,TGTLOX
  C
  CEND LATLON *****
  CUSE MIS 20APR71 *****
  C
  C COMMON/MIS/MNMDS(40),NDECOYS(40),MISDEF,PCTX
  C
  CEND MIS *****
  CUSE 2 20APR71 *****
  C
  C DATA FROM BASFILE
  C
  C COMMON/2/CCREL(20),IREG(200),IALERT(200),IPAY(200),YIELD(200),
  C ICLASTYPE(200),NALLTYPE(7,200),SKOWTYP(7,200),DELMPTYP(7,200),
  C ZALLTYPE(7,200),NALLCLAS(7,50),SKOWPCL(7,50),DELMPC(7,50),
  C ZALLCLAS(7,50)
  C TYPE INTEGER CLASTYPE
  C TYPE REAL NALLTYPE,NALLCLAS
  C

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FTNS.5

```

CEND 2 *****
CUSE 20APR7 *****
C     DATA FROM VAL2 *****
C     COMMON/LITTLE/INDCLAS,SURV,IGTRAD,TMULT,VALDES,VALESC,CTMULT,
C     1PLANYLD,DELYLD,NOMPNS,VALFAC *****
C     LITTLE *****
CEND  DIMENSION PROSS(2),VTBEF(2),VTAFT(2),CUMESC(2),CUMDES(2)
      VTFT(1) = V(1)
      VTFT(2) = V(2)
      FVALOLD = 1.
      CUMESC(1) = CUMESC(2) = CUMDES(1) = CUMDES(2) = 0.
      VALDES = VALESC = SURV = 0.
      PROSS(1) = PROSS(2) = 1.
      PLANYLD = DELYLD = 0.
      IF (NK-3) 376,376,377
377 PRINT 396,INDEXNO
396 FORMAT(2X,15HEVALPLAN PRINTS,110,2X,20RT00-MANY VALUE COMPS)
618 PRINT 397,NK
397 FORMAT(2X,20HON THIS TARGET NK IS,016)
      RETURN
376 CONTINUE
      IF (PKTX.GT.0.1) 2
      1 IF (JSKIP) 3, 3, 4
      4 IF (JOPT(1)) OR NPASS.EQ. 1) 2, 3
      3 TINT = ABSF(MISOEF) * PKTX
      IF (TINT.EQ. 0.) 2, 2200
2200 CONTINUE
      HERE COMPUTE RELIABLE INTERCEPTORS, TOTAL OBJECTS
      TORJ = 0.
      PKTXIN = 1. / (1. - PKTX)
      IF (JOPT(1)) 30, 35
      WHEN RUN AFTER PLNTPLAN, PEN DOES NOT INCLUDE PKTX
      30 PKTXIN = 1.
      35 DO 20 I = 1, NUM
      NUP = 1
      J = IG(1)
      SK = ITYPE(J)
      SL = IPAY(J)
      IF (ICLASS(K).EQ. 1) 5, 20
      5 IF (KORR(1)) .LT. 0) 6, 42
      6 NUP = KORR(1)
      42 TORJ = TORJ + NUP * (NMHOS(1) - NDECOYS(1)) * CCREL(I,REG(J)) * DEN(I) * DBL(J)
      1 REL(K) = PKTXIN
      20 CONTINUE
      RT = TINT / TORJ
      PK = MINIF(PKTX, RT)
      DO 25 I = 1, NUM
      J = IG(I)
      SK = ITYPE(J)
      IF (ICLASS(K).EQ. 1) 24, 25
      24 DEN(I) = DEN(I) * (1. - PK) * PKTXIN
      25 CONTINUE
      2 CONTINUE
      CALL INITPROB(PK, PK, PK)
      DO 90 I = 1, NUM
      J = IG(I)

```



```

1091 CONTINUE
IF(JG.GT.200)90,1091
IF(KORR(I).LT.0)3000,3001
300 NWP=KORR(I) 5 GO TO 3002
300 NWP=1
3002 CONTINUE
SAVE = CTMULT
IF (JOST(1)) 2000, 2001
2000 CTMULT = 1.
2001 REL = CCREL(IREG(JG)) * REL(ITYPE(JG)) * DBL(JG) * PEN(I)
2002 CONTINUE
IF(INPASS.EQ.1)86,109
86 IWEAP=0
IF(FUNC(ITYPE(JG)).EQ.3MLRA)IWEAP=1
IF(FUNC(ITYPE(JG)).EQ.3MLRA.AND.IALERT(JG).NE.1)IWEAP=2
IF(FUNC(ITYPE(JG)).EQ.4MSLR)IWEAP=3
IF(FUNC(ITYPE(JG)).EQ.4MSLR)IWEAP=4
IF(FUNC(ITYPE(JG)).EQ.4MSLR)IWEAP=5
IF(FUNC(ITYPE(JG)).EQ.4MSLR)IWEAP=6
IF(FUNC(ITYPE(JG)).EQ.4MSLR)IWEAP=7
IF(IWEAP.EQ.0.AND.ICLASS(ITYPE(JG)).EQ.1)GO TO 107
IF(IWEAP.EQ.0.AND.ICLASS(ITYPE(JG)).EQ.2)GO TO 108
GO TO 111
107 IWEAP=4 5 IF=4MICBM 5 PRINT 112,FUNC(ITYPE(JG)),I 5 GO TO 111
108 IWEAP=1 5 IF=3MLRA 5 PRINT 112,FUNC(ITYPE(JG)),I
112 FORMAT(1M1, 32H*** UNEXPECTED FUNCTION CODE IS 1A8,39H, EVALALOC H
113 IAS ASSUMED DEFAULT VALUE OF .AB/)
111 INDCLAS=CLAS(ITYPE(INDTYPE))
NALLCLAS(IWEAP,INDCLAS)=NALLCLAS(IWEAP,INDCLAS) * CTMULT*VALFAC
10NWP
NALLTYPE(IWEAP,INDTYPE)=NALLTYPE(IWEAP,INDTYPE) * CTMULT*VALFAC
10NWP
ALLTYPE(IWEAP,INDTYPE)=ALLTYPE(IWEAP,INDTYPE) * CTMULT*REL*VALFAC
10NWP
ALLCLAS(IWEAP,INDCLAS)=ALLCLAS(IWEAP,INDCLAS) * CTMULT*REL*VALFAC
10NWP
SKOMPCL(IWEAP,INDCLAS)=SKOMPCL(IWEAP,INDCLAS) * YIELD(JG) * CTMULT
10NWP
DELWPCL(IWEAP,INDCLAS)=DELWPCL(IWEAP,INDCLAS) * YIELD(JG) * REL *
1 CTMULT*VALFAC*10NWP
SKOMPTYP(IWEAP,INDTYPE)=SKOMPTYP(IWEAP,INDTYPE) * YIELD(JG) * CTMULT
10NWP
DELNPTYP(IWEAP,INDTYPE)=DELNPTYP(IWEAP,INDTYPE) * YIELD(JG) * REL *
1 CTMULT*VALFAC*10NWP
109 CONTINUE
DELYLD=DELYLD * REL * YIELD(JG) * CTMULT*VALFAC
10NWP
PLANLYLD=PLANLYLD * YIELD(JG) * CTMULT*VALFAC
10NWP
CTMULT = SAVE
FVALTOA = 0.
DO 91 K=1,NK
TEMP = TOA(I)/TAU(K)
IF(TEMP-2000.)356,356,357
357 TEMP=2001.
80 TO 71

```

FTN5.5

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356 IF (TEMP) 256, 256, 71
71 CONTINUE
91 FVALTOA = FVALTOA + FVAL(K1)/(1. + TEMP**4.)
GO TO 121
256 FVALTOA = 1.0
121 DO 95 J = 1, M
IF (H(J)) 236, 236, 237
236 H(J) = 0.001
237 IF (YIELD(JG)) 55, 65, 238
65 PRINT 66, JG, INDEXNO
66 FORMAT (2X, 21H RAD YIELD ON GROUP NO, C16, 14H ON TOT INDEXED, I10)
CALL ABORT
RETURN
238 VARF=YIELD(JG)**(1./3.)
SK=54*(H(J)+H(J)*VARF+VARF
IF (H(J)) 81, 1, 3, 92, 93
92 FN = 3.0
GO TO 94
93 FN = 6.0
94 SIG2 = (CEP(ITYPE(JG))/1.1772)**2*(T6TRAD/2.4477)**2
SD = FN*SIG2
IF (JOPT(1)) 2003, 2004
2003 SIG = SQRT(SIG2) $ MOD = FN $ A = SQRT(2.*SK)
R2 = DIST(TGTLAT, T6TLO, BLAT(I), BLON(I))
STK = SSKPC(MOD, A, SIG, R2)
GO TO 2006
2004 CONTINUE
STK = 1.0 - (SD/(SD+SK))**FN
SSK = STK*RELT
SSS = 1.0 - SSK
CALL SSSPCALC( SSS, NRP, J)
SSK1 = SSS
VTBEF(J) = VTAF(J)*FVALTOA/FVALOLD
CUMESC(J) = CUMESC(J) + VTAF(J) - VTBEF(J)
CUMDES(J) = CUMDES(J) + VTBEF(J) * SSK
PRODS(J) = PRODS(J) * SSS
VTAF(I) = VTBEF(J) * SSS
95 CONTINUE
FVALOLD = FVALTOA
SUUVL = 0. $ SUVTIM = 0.
IF (VTO.LT.1.E-8) 130, 131
130 DO 132 ID=1, M
132 SUUVL = SUUVL + PRODS(ID)
DE(I) = 100.* (1. - SUUVL) $ TIMEVAL(I) = 0. $ GO TO 90
131 CONTINUE
DO 117 ID=1, M
SUVTIM = SUVTIM + CUMDES(ID)
SUUVL = SUUVL + PRODS(ID) * VO(ID)
DE(I) = (1. - SUUVL/VTO)*100.
TIMEVAL(I) = SUVTIM*100./VTO
90 CONTINUE
SURV = 0.
IF (VTO.LT.1.E-8) 135, 136
135 SURV = SUUVL $ VALDES = VALESC = 0. $ GO TO 140
136 CONTINUE
DO 110 J=1, M

```

FTN5.5

VALDES = VALDES + CUMDES(J)  
VALESC = VALESC + CUMESC(J)  
110 SURV = SURV + PRODS(J)\*VO(J)  
140 SURV=SURV/VO  
END

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176000  
177000  
178000  
179000  
180000  
181000

5.4TS EVALPLAN

EVALPLAN

IDENT

01407  
00110  
00004  
01442  
00346  
00076  
00122  
17524  
00013

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES  
EVALPLAN  
OPT  
WPMOD  
T63MOD  
LATLON  
MIS  
2  
LITTLE

EXTERNAL SYMBOLS

THEND.  
Q3000040  
Q1004100  
Q2007111  
Q1010100  
QAGDICT.  
INITPROB  
ABORT  
DIST  
SSRPC  
SSSPCALC  
SCRTF  
MINIF  
STM.  
QNSINGL.







# 5.ATS EVALPLAN

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|-----------------|-------------------------------------|-------------------------------------|---|----------|----|
| P01357 JG       | 00411 00425 00437 00451 00463 00507 | 00667 00753 00763 00777 01020       |   |          |    |
| C00000 JGPT     | 00400 00436 00467 00507 00536 00567 | 00633 00667 00707 00730 00734       |   |          |    |
| C00003 JSKIP    | 00230 00233 00236 00241 00246 00250 | 00263 00267 00272 00273 00274       |   |          |    |
| P01360 K        | 00164 00161 00161 00161 00161 00161 | 00161 00161 00161 00161 00161 00161 |   |          |    |
| C00055 KORR     | 00236 00236 00236 00236 00236 00236 | 00236 00236 00236 00236 00236 00236 |   |          |    |
| P01361 L        | 00126 00126 00126 00126 00126 00126 | 00126 00126 00126 00126 00126 00126 |   |          |    |
| C00002 M        | 00272 00272 00272 00272 00272 00272 | 00272 00272 00272 00272 00272 00272 |   |          |    |
| X00015 MINIF    | 00171 00171 00171 00171 00171 00171 | 00171 00171 00171 00171 00171 00171 |   |          |    |
| C00120 MISDEF   | 01045 01045 01045 01045 01045 01045 | 01045 01045 01045 01045 01045 01045 |   |          |    |
| P01362 MOD      | 00605 00605 00605 00605 00605 00605 | 00605 00605 00605 00605 00605 00605 |   |          |    |
| C14734 NALLCLAS | 00613 00613 00613 00613 00613 00613 | 00613 00613 00613 00613 00613 00613 |   |          |    |
| C01774 NALLTYPE | 00250 00250 00250 00250 00250 00250 | 00250 00250 00250 00250 00250 00250 |   |          |    |
| C00361 NAMEWPN  | 00132 00132 00132 00132 00132 00132 | 00132 00132 00132 00132 00132 00132 |   |          |    |
| C00050 NDECOYS  | 00166 00166 00166 00166 00166 00166 | 00166 00166 00166 00166 00166 00166 |   |          |    |
| C00007 NK       | 00216 00216 00216 00216 00216 00216 | 00216 00216 00216 00216 00216 00216 |   |          |    |
| C00011 NCMPS    | 00247 00247 00247 00247 00247 00247 | 00247 00247 00247 00247 00247 00247 |   |          |    |
| C01441 NPASS    | 00554 00554 00554 00554 00554 00554 | 00554 00554 00554 00554 00554 00554 |   |          |    |
| C00341 NTYPE    | 00275 00275 00275 00275 00275 00275 | 00275 00275 00275 00275 00275 00275 |   |          |    |
| C00000 NTYPES   | 00156 00156 00156 00156 00156 00156 | 00156 00156 00156 00156 00156 00156 |   |          |    |
| C00016 NUN      | 00207 00207 00207 00207 00207 00207 | 00207 00207 00207 00207 00207 00207 |   |          |    |
| C00000 NUNDS    | 00131 00131 00131 00131 00131 00131 | 00131 00131 00131 00131 00131 00131 |   |          |    |
| P01363 NUP      | 00216 00216 00216 00216 00216 00216 | 00216 00216 00216 00216 00216 00216 |   |          |    |
| C00151 PEN      | 00247 00247 00247 00247 00247 00247 | 00247 00247 00247 00247 00247 00247 |   |          |    |
| P01364 PK       | 00554 00554 00554 00554 00554 00554 | 00554 00554 00554 00554 00554 00554 |   |          |    |
| C00121 PKTX     | 00275 00275 00275 00275 00275 00275 | 00275 00275 00275 00275 00275 00275 |   |          |    |
| P01365 PKYXIN   | 00156 00156 00156 00156 00156 00156 | 00156 00156 00156 00156 00156 00156 |   |          |    |
| C00007 PLANYLD  | 00207 00207 00207 00207 00207 00207 | 00207 00207 00207 00207 00207 00207 |   |          |    |
| C00002 PREFABRT | 00131 00131 00131 00131 00131 00131 | 00131 00131 00131 00131 00131 00131 |   |          |    |
| P00003 PROOSS   | 00127 00127 00127 00127 00127 00127 | 00127 00127 00127 00127 00127 00127 |   |          |    |
| X00003 Q1004100 | 00255 00255 00255 00255 00255 00255 | 00255 00255 00255 00255 00255 00255 |   |          |    |
| X00005 Q1010100 | 01044 01044 01044 01044 01044 01044 | 01044 01044 01044 01044 01044 01044 |   |          |    |
| X00004 Q2007111 | 00723 00723 00723 00723 00723 00723 | 00723 00723 00723 00723 00723 00723 |   |          |    |
| X00002 Q3000040 | 00163 00163 00163 00163 00163 00163 | 00163 00163 00163 00163 00163 00163 |   |          |    |
| X00006 Q8001CT  | 00000 00000 00000 00000 00000 00000 | 00000 00000 00000 00000 00000 00000 |   |          |    |
| X00017 QNSINGL  | 01243 01243 01243 01243 01243 01243 | 01243 01243 01243 01243 01243 01243 |   |          |    |
| P01366 R2       | 01061 01061 01061 01061 01061 01061 | 01061 01061 01061 01061 01061 01061 |   |          |    |
| C00241 REL      | 00263 00263 00263 00263 00263 00263 | 00263 00263 00263 00263 00263 00263 |   |          |    |
| P01251 RELCON.. | 00324 00324 00324 00324 00324 00324 | 00324 00324 00324 00324 00324 00324 |   |          |    |
| P01367 RELY     | 00372 00372 00372 00372 00372 00372 | 00372 00372 00372 00372 00372 00372 |   |          |    |
| P01370 RT       | 00271 00271 00271 00271 00271 00271 | 00271 00271 00271 00271 00271 00271 |   |          |    |
| C00113 RVAL     | 00350 00350 00350 00350 00350 00350 | 00350 00350 00350 00350 00350 00350 |   |          |    |
| P01371 SAVE     | 01034 01034 01034 01034 01034 01034 | 01034 01034 01034 01034 01034 01034 |   |          |    |
| P01372 SD       | 01042 01042 01042 01042 01042 01042 | 01042 01042 01042 01042 01042 01042 |   |          |    |
| P01373 SIB      | 01033 01033 01033 01033 01033 01033 | 01033 01033 01033 01033 01033 01033 |   |          |    |
| P01374 SIO2     | 01010 01010 01010 01010 01010 01010 | 01010 01010 01010 01010 01010 01010 |   |          |    |
| P01375 SK       | 00640 00640 00640 00640 00640 00640 | 00640 00640 00640 00640 00640 00640 |   |          |    |
| C15472 SKDWPCL  | 00655 00655 00655 00655 00655 00655 | 00655 00655 00655 00655 00655 00655 |   |          |    |
| C04564 SKDWPYTP | 01041 01041 01041 01041 01041 01041 | 01041 01041 01041 01041 01041 01041 |   |          |    |
| X00014 SORTF    | 01102 01102 01102 01102 01102 01102 | 01102 01102 01102 01102 01102 01102 |   |          |    |
| P01376 SSK      | 01113 01113 01113 01113 01113 01113 | 01113 01113 01113 01113 01113 01113 |   |          |    |
| X00012 SSRPC    | 01062 01062 01062 01062 01062 01062 | 01062 01062 01062 01062 01062 01062 |   |          |    |



## S-4TS

## EVALPLAN

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|        |          |       |       |       |       |       |       |       |       |       |
|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P01377 | SSS      | 01104 | 01107 | 01112 | 01122 | 01124 |       |       |       |       |
| X00013 | SSPCALC  | 01105 |       | 00502 | 00564 | 00760 |       |       |       |       |
| X00016 | SYN.     | 01136 | 00146 |       |       |       |       |       |       |       |
| P01400 | SYN.     | 01666 | 01130 | 01213 | 01234 | 01235 | 01237 | 01237 | 01237 |       |
| C00001 | SURV     | 00124 | 00124 | 01205 | 01206 | 01213 |       |       |       |       |
|        |          | 01241 | 01241 |       |       |       |       |       |       |       |
| P01401 | SURTIM   | 01133 | 01163 | 01164 | 01177 |       |       |       |       |       |
| P01402 | SLVVL    | 01132 | 01145 | 01146 | 01151 | 01167 | 01172 | 01212 |       |       |
| C00013 | TAU      | 00713 | 00713 |       |       |       |       |       |       |       |
| P01403 | TEMP     | 00714 | 00720 | 00721 | 00725 |       |       |       |       |       |
| C00074 | TGFLAT   | 01057 |       |       |       |       |       |       |       |       |
| C00075 | TGFLON   | 01057 |       |       |       |       |       |       |       |       |
| C00002 | TGTRAD   | 01927 | 01033 |       |       |       |       |       |       |       |
| X00001 | THENO.   | 00143 | 00153 | 00551 | 00573 | 00767 |       |       |       |       |
| C00303 | TKEVAL   | 01154 | 01201 |       |       |       |       |       |       |       |
| P01404 | TINT     | 00250 | 00270 |       |       |       |       |       |       |       |
| C00003 | TMULT    |       |       |       |       |       |       |       |       |       |
| C00237 | TOA      | 00711 | 00711 | 00266 | 00271 |       |       |       |       |       |
| P01405 | TORJ     | 00203 | 00265 |       |       |       |       |       |       |       |
| P00270 | TS00001. | 00226 |       |       |       |       |       |       |       |       |
| P00320 | TS00002. | 00300 |       |       |       |       |       |       |       |       |
| P01203 | TS00003. | 00326 |       |       |       |       |       |       |       |       |
| P00735 | TS00004. | 00707 |       |       |       |       |       |       |       |       |
| P01124 | TS00005. | 00743 |       |       |       |       |       |       |       |       |
| P01150 | TS00006. | 01142 |       |       |       |       |       |       |       |       |
| P01172 | TS00007. | 01160 |       |       |       |       |       |       |       |       |
| P01237 | TS00010. | 01221 |       |       |       |       |       |       |       |       |
| P01254 | UP00005. | 01250 |       |       |       |       |       |       |       |       |
| P01265 | UP00006. | 00377 | 01256 | 01257 | 01260 | 01262 | 01263 | 00474 | 00506 | 00534 |
|        |          | 00377 | 00410 | 00424 | 00436 | 00450 | 00462 |       |       |       |
| P01275 | UP00007. | 07267 | 01270 | 01273 | 01273 | 01273 | 01303 | 01304 |       |       |
| C00004 | VALDES   | 00600 | 01247 | 01277 | 01300 | 01301 | 01303 |       |       |       |
| C00005 | VALESC   | 00125 | 01215 | 01224 | 01224 | 01226 | 01226 |       |       |       |
| C00012 | VALFAC   | 00125 | 01214 | 01227 | 01230 | 01231 | 01231 |       |       |       |
|        |          | 00601 | 00607 | 00616 | 00617 | 00625 | 00625 | 00635 | 00644 | 00652 |
|        |          | 00677 |       |       |       |       |       |       |       |       |
| C00005 | VO       | 00114 | 00114 | 00116 | 00116 | 01166 | 01166 | 01233 | 01233 |       |
| P00007 | VTAFY    | 00115 | 00117 | 01114 | 01116 | 01124 |       |       |       |       |
| P00005 | VTBEF    | 01115 | 01117 | 01120 | 01123 |       |       |       |       |       |
| C00001 | VTO      | 01133 | 01134 | 01173 | 01173 | 01200 | 01201 | 01206 | 01240 | 01240 |
| C00343 | VTOC     |       |       |       |       |       |       |       |       |       |
| P00223 | WS00001. | 00267 |       |       |       |       |       |       |       |       |
| P00303 | WS00002. | 00317 |       |       |       |       |       |       |       |       |
| P00327 | WS00003. | 01204 | 01204 |       |       |       |       |       |       |       |
| P00710 | WS00004. | 00736 | 00736 |       |       |       |       |       |       |       |
| P00744 | WS00005. | 01127 | 01127 |       |       |       |       |       |       |       |
| P01145 | WS00006. | 01147 |       |       |       |       |       |       |       |       |
| P01163 | WS00007. | 01171 |       |       |       |       |       |       |       |       |
| P01224 | WS00010. | 01236 |       |       |       |       |       |       |       |       |
| P01406 | YARF     | 01004 | 01007 | 01010 |       |       |       |       |       |       |
| C01154 | YIELD    | 00633 | 00634 | 00641 | 00650 | 00656 | 00667 | 00670 | 00675 | 00675 |
|        |          | 01002 | 01002 |       |       |       |       |       |       |       |

00371 SYM00LS

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SUBROUTINE EVAL2      60C771      *****
CSUBR      EVAL2      60C771      *****
C          EVAL2 OBTAINS WEAPON DATA FROM BASFILE, COMPLEX TARGET DATA FROM
C          POSTDATA PORTION OF BASFILE, AND ALLOCATION DATA FROM ALOCTAR.
C          ALL QUESTIONS SHOULD BE REFERRED TO J. BICK.
C
C          FILHANDR 15JUNE71 *****
CUSE
C
C          FILEHANDLER COMMON BLOCKS
C
COMMON/FILABEL/INIDENT, INRUNNO, INDATE, INFORM, INSECR,
1      INTIME, INLNETH, INCOMM(5)
COMMON/ITP/ITP
COMMON/MYIDENT/MYIDENT
COMMON/MYLABEL/MYFORMT, MYSECR, MYLNETH, MYCOMM(5)
COMMON/NOPRINT/NOPRINT
COMMON/TWORD/ITWORD
EQUIVALENCE (TWORD, ITWORD)
C
CEND
CUSE
C          FILES 10MAY71 *****
COMMON/FILES/TGTFILE(2), BASFILE(2), MSLTIME(2), ALOCTAR(2),
1      TMPALOC(2), ALOCGRP(2), STRKFIL(2), EVENTAPE, PLANTAPE
1      TYPE INTEGER TGTFILE, BASFILE, MSLTIME, ALOCTAR, TMPALOC,
1      ALOCGRP, STRKFIL, EVENTAPE, PLANTAPE, SCRATCH
EQUIVALENCE (SCRATCH, STRKFIL)
C
CEND
CUSE
C          FILES 20APR71 *****
COMMON/FILES 20APR71 *****
C
C          USER PRINT AND OPERATION OPTIONS
C
COMMON/OPT/JOPT(20), ITGTMAX, PREFABRT, JSKIP
TYPE LOGICAL JOPT
C
CEND
CUSE
C          OPT 20APR71 *****
COMMON/OPT 20APR71 *****
C
C          DATA FROM BASFILE
C
COMMON/MPNMOD/NTYPES, CEP(80), ICLASS(80), REL(80), NAMEWPN(80),
1      IFUNC(80), ITYPE(200), DBL(200), NPASS
C
CEND
CUSE
C          MPNMOD 24JUNE71 *****
COMMON/MPNMOD 24JUNE71 *****
C
C          DATA FROM ALOCTAR FILE
C
COMMON/TGTMOD/INDEXNO, VTO, M, H(2), VO(2), MK, EVAL(3), TAU(3), NUM,
1      IIG(30), KOBRR(30), RVAL(30), PEN(30), TOA(30), DE(30), TIMEVAL(30),
2      ZNTYPE, INDTYPE, VTOC, ITGTINDX, IBSINDEX
C
CEND
CUSE
C          TGTMOD 20APR71 *****
COMMON/TGTMOD 20APR71 *****
C
C          LATON *****

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C      CALL RDARRAY(NDECOYS,40)
      /PAYLOAD/
C      CALL SKIP(423)
      /MPNREG/
C      CALL RDARRAY(CCREL,NREGMX)
      CALL SKIP(80)
      /MPNTYPE/
C      CALL RDARRAY(CEP,NMPTYPMX)
      CALL SKIP(320)
      CALL RDARRAY(ICLASS,NMPTYPMX)
      CALL SKIP(80)
      CALL RDARRAY(REL,NMPTYPMX)
      CALL SKIP(160)
      CALL RDARRAY(NAMEUPN,NMPTYPMX)
      CALL RDARRAY(PUNC,NMPTYPMX)
      CALL SKIP(800)
      /MPNGRP/
C      CALL RDARRAY(IRES,NGRPPIX)
      CALL RDARRAY(IITYPE,NGRPPIX)
      CALL RDARRAY(IALEFT,NGRPPIX)
      CALL RDARRAY(IGL,NGRPPIX)
      CALL RDAREAY(IPAY,NGRPPIX)
      CALL RDAREAY(YIELD,NGRPPIX)
      CALL SKIP(6287)
      /EXCESS/
C      CALL RDAREAY(VOTYPE,NGRPPIX) & CALL SKIP(551)
      CALL ROWORD
      IF (ITWORD.NE.8HRRRRRRRR) 7100,7102
7100 PRINT 7104
7104 FORMAT(1H0,10X,2HWRONG POSTDATA END SENTINEL)
      STOP
7102 IF(JOBT(1))7101,7021
7101 DO 7103 I = 1,NGRPPIX
7103 DBL(I) = VOTYPE(I)
7021 CONTINUE
C      INITIALIZE ARRAYS TO ZERO
      DO 10 I=1, NTGTPMX
      NAMETYPE(I)=NOFTYPE(I)=CLAS(TYPE(I))=VOSTYPE(I)=VOTYPE(I)=0
      VESCTYPE(I)=VRENTYPE(I)=SURTYPE(I)=SKEDTYPE(I)=DELTYPE(I)=0
      DESTNO(I)=CDEST(I)=NSUMTYPE(I)=SUMTYPE(I)=0
      KTYPSNGL(I)=KTYPCOMP(I)=0
      DO 10 I=1,NMPPNS
      MPNTYP(I)=NMPTYP(I)=SKEDALL(I)=DELALL(I)=0
      SKONMPTYP(I)=IT)=DELMPTYP(I)=ALLTYPE(I)=ALLTYPE(I)=0
      DO 15 I=1, NCLSHX
      NAMECLAS(I)=NOFCLAS(I)=VOCLAS(I)=VDESCLAS(I)=VESCCLAS(I)=0
      KCLSNGL(I)=KCLSCOMP(I)=0
      VREMLAS(I)=SURVCLAS(I)=SKEDCLAS(I)=DELCLAS(I)=0
      PCDESTCL(I)=DESTNOCL(I)=NSUMCLAS(I)=SUMCLAS(I)=0
      DO 15 I=1,NOMPPNS
      SKDMPCL(I)=IC)=DELMPCL(I)=IC)=ALLCLAS(I)=IC)=0
      NUNTPARC(JGT)=NMBRE=IT(PT)=IT(PT)=NUNCLAS=NUNTYPE=NOFTOT=0
      SKEDTOT=DELTOT=VOTOT=DESTTOT=VOSTOT=VESCTOT=VRENTOT=SUMVOT=0.
      IF (NTPYES.8T,NMPTYPMX) 1020, 1021
1020 NINDIC=6HNTYPES
      GO TO 1099

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1021 CONTINUE
1048 IF(JOPT(1))2048,2049
2048 ITP=SCRATCH $ MYIDENT=THSCRATCH
    CALL SETREAD
    GO TO 2050
2049 ITP=SCRATCH $ MYIDENT=THSCRATCH
    IF(INPASS-1)2051,2052
2052 CALL SETWRITE
    GO TO 2053
2051 CALL SETREAD
2053 ITP=ALDOCTAR(1)
    MYIDENT=THALDOCTAR
    CALL SETREAD
2050 CALL PAGESKP
    IF(1)GTHAX(4,4,3
      3 PRINT I
      1 FORMAT(//40X,21MSAMPLE OF TARGET LIST/40X,21(1M))
      4 CONTINUE
      IF(INPASS.EQ.1) 44,43
      43 CALL WPMODIF
      IF(JSKIP.EQ.6)RETURN:100,44
      44 ITP = ALDOCTAR(1)
      IF(JOPT(1).EQ.1)ITP=SCRATCH
      VALFAC=1.
      ICK=1M
      JSKIP=0
1350 CONTINUE
      C
      READ ALDOCTAR DATA BLOCK
      CALL RDARRAY(NT,45)
      IF(NT(2).EQ.3)EOT(1)22,45
      45 NAME=NT(1) $ INDEX=NT(2) $ NDESIG=NT(3)
      YMULT=NT(7) $ YGLAT=NT(8) $ YGLONG=NT(9) $ YGLRAD=NT(10)
      VTO=NT(11) $ V=NT(12) $ H(1)=NT(13) $ H(2)=NT(14)
      VO(1)=NT(15) $ VO(2)=NT(16) $ NK=NT(17)
      FVAL(1)=NT(18) $ FVAL(2)=NT(19) $ FVAL(3)=NT(20)
      TAU(1)=NT(21) $ TAU(2)=NT(22) $ TAU(3)=NT(23)
      NCLASS=NT(24) $ NTYPE=NT(26)
      MISDEF=NT(31) $ CTMULT=NT(32) $ CMULSV=CTMULT
      NCM=NT(45)
      VTO=VTO+1.E-10
      VTCC=0
      CALL RDARRAY(IG,NUM)
      CALL RDARRAY(KORR,NUM)
      CALL RDARRAY(RVAL,NUM)
      CALL RDARRAY(PEN,NUM)
      CALL RDARRAY(TOA,NUM)
      IF(JOPT(1).EQ.0)GO TO 6200
      CALL RDARRAY(RLAT,NUM)
      CALL RDARRAY(BLON,NUM)
      6200 IF(NCLASS.EQ.7)HCOMPLEX,OR,NCLASS.EQ.8)HCOMPLEX)6201,6202
      6202 CONTINUE
      ASSIGN 455 TO NCMWRD
      IF (M=2)456,456,457
      457 PRINT 496, INDEXNO,ICK
      496 FORMAT (2X,15MON TARGET INDEX,110=AL,1X,23MT00 MANY HARDNESS COMPS
      11

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617 PRINT 497,NAME,M
497 FORMAT(2X,14HTARGET NAME IS,IX,AB,IX,4HM IS,016)
M=2
GO TO NEXHRD
456 CONTINUE
ASSIGN 6201 TO NEXVAL
IF(NK=3)6201,6201,377
377 PRINT 396, INDEXNO, ICK
396 FORMAT(2X,15HON TARGET INDEX,110,A1,IX,20HTOO MANY VALUE COMPS)
618 PRINT 397,NAME,NK
397 FORMAT(2X,14HTARGET NAME IS,IX,AB,IX,SHNK IS,016)
NK=3
GO TO NEXVAL
6201 CONTINUE
IF(NUM.EQ.0)1044,1045
1044 NMBRE=NMBRE+CTMULTY
1045 JTGTS=JTGTS+CTMULTY
ITGTPRT=ITGTPRT+1
IF (NUM.GT.NASGNMX) 1040, 1041
1040 NINDIC=3HNUM
NUM=0
GO TO 1199
1041 CONTINUE
IF(JOPT(1),EQ.1)GO TO 185
IF(NPASS.EQ.1)185,186
185 IF(NUM.EQ.0)2185,2186
2186 CALL ORDER(TOA,IX,NUM)
2185 IF(JOPT(1),2210,2217
2217 CALL REORDER(IX,NUM,4,TOA,IG,PEN,KORR,0,0,0)
ITP = SCRATCH
IF(INCLASS,EQ.7HCOMPLEX,OR,NCLASS,EQ.8HCOMPLEX)213,214
213 IF (NTYPE - 30) 1211, 1211, 1210
1210 PRINT 1212,INDEXNO,ICK,NAME
1212 FORMAT(//2X,4HTHERE ARE TOO MANY COMPONENTS ON TARGET NUMBER,
1110,A2,IX,7HNAMED *AB)
NTYPE=30
1211 CONTINUE
DO 215 I=1,NTYPE
ITWORD=INDEXNO
CALL WRWORD
CALL WRARRAY(TOA,NUM)
CALL WRARRAY(IG,NUM)
CALL WRARRAY(PEN,NUM)
CALL WRARRAY(KORR,NUM)
215 CONTINUE
GO TO 156
214 ITWORD=INDEXNO
CALL WRWORD
CALL WRARRAY(TOA,NUM)
CALL WRARRAY(IG,NUM)
CALL WRARRAY(PEN,NUM)
CALL WRARRAY(KORR,NUM)
GO TO 186
2210 CALL REORDER(IX,NUM,6,TOA,IG,PEN,KORR,RLAT,BLON,0)
186 IF(TMULT .LT. 2.52*51
51 ITP=BASFILE(1)

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IF(JOPT(1))2151,2152
C      WHEN EVALALOC IS RUN PRE-ALOCOUT, SKIP THE MULTIPLE TGT RECORDS
2152 IC=CTMULT $ CALL SKIP(IC) $ ASSIGN 44 TO NEXT
      GO TO 50
C      WHEN EVALALOC IS RUN POST-PLNTPLAN, READ THE MULTIPLE TGT RECORDS
2151 CALL RDARRAY(NWT,8)
      NAME=NWT(1)
      INDEXNO=NWT(2)
      NDESIG=NWT(3)
      TGLAT=NWT(7)
      TGLON=NWT(8)
      CMULSVD=CMULSVD-1
      IF(CMULSVD.LT.1.)2167,2168
2168 ASSIGN 2151 TO NEXT
      GO TO 50
2167 ASSIGN 44 TO NEXT
      GO TO 50
52 IF(INCLASS.EQ.7)HCOMPLEX.OR.NCLASS.EQ.8)HCOMPLEXD)53,54
54 ASSIGN 44 TO NEXT $ GO TO 50
53 NUNTARC=NTYPE $ VTOC=VTO $ ASSIGN 200 TO NEXT
      JSKIP=0
      ISVDD=INDEXNO
      DO 200 IC=1,NUNTARC
      ITP=8$FILE(1)
      CALL RDARRAY(NG,29)
      NAME=NC(1) $ INDC=NC(2) $ NDESIG=NC(3) $ CTMULT=C(7)
      TGLAT=C(8) $ TGLON=C(9) $ TGTTRAD=C(10)
      VTOC(1) $ H=NC(12) $ H(1)=C(13) $ H(2)=C(14)
      IF(INDC=ISVDD)277,278,277
278 IC=2M=0 $ GO TO 279
277 IC=1M=0
279 INDEXNO = INDC
      ASSIGN 621 TO NEXHRD
      IF(M=2) 621, 621, 457
261 FVAL(1)=C(15) $ NK=NC(16)
      VO(1)=VTO=FVAL(1) $ VO(2)=VTO-VO(1)
      ASSIGN 624 TO NEXVAL
      IF(NK=3) 624, 624, 377
264 FVAL(1)=C(17) $ GO TO (202,203,204)NK
202 FVAL(2)=FVAL(3)=0 $ GO TO 205
203 FVAL(2)=1.-FVAL(1) $ FVAL(3)=0 $ GO TO 205
204 FVAL(2)=1.-FVAL(1) $ FVAL(3)=1.-FVAL(1)-FVAL(2)
205 TAU(1)=C(19) $ TAU(2)=C(20) $ TAU(3)=C(21)
      NCLASS=NC(22) $ NTYPE=NC(24) $ VALFAC=VT/VTOC
C      NAME(IC)=NAME
C      TLN(IC)=TGLAT
C      TLN(IC)=TGLON
C      IF(JOPT(2))7200,7201
C7200 NUMX=NUM
C      CALL PLOT
C7201 CONTINUE
      GO TO 50
200 JSKIP=1
      NUNTARC=0
      GO TO 44
50 IF(NPASS.EQ.1)1215,1216

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M2 = TST1
M3 = 60.*(TST1-M2)
NLTD(I) = M1
NLTM(I) = M2
NLTS(I) = M3
M1 = BLON(I)
TST1 = 60.*(BLON(I)-M1)
M2 = TST1
M3 = 60.*(TST1-M2)
NLND(I) = M1
NLNM(I) = M2
NLNS(I) = M3
J = IG(I)
YY(I) = 1009.*YIELD(J)
3347 CONTINUE
3349 CONTINUE
72 FORMAT(/,3X,5HCLASS,5X,4HNTYPE,5X,4HNAME,9X,8HLATITUDE,3X,9HLONGITU
1DE,5X,6HTARGET,6X,36HVALUE INDEXNO VALUE OF TBT NO MULT/33X,
22(12H DEG MIN SEC),5X,4HCODE,24X,7HCOMPLEX)
MULT=CTMULT+.3
PRINT 67,KCLASS, NTTYPE,NAME,NTGLTD,NTGLTM,NTGLTS,NTGLND,NTGLNM,NTG
1LMS,NDESG,VTO,INDEXNO,ICK,VTOC,NT(44),MULT
67 FORMAT(3X,3(A6,2X),614,4X,A7,F10.4,I8,A2,F10.4,I7,I5)
IF (NUM.EQ.0) GO TO K9ADPRNT
PRINT 58
58 FORMAT(/,7X,6HNUMBER,5X,5HGROUP,2X,8HCORRIDOR,7X,3HPTP,3X,7HARRIVAL
1,2X,8HREAL EST,5X,5HVALUE,2X,8HLATITUDE,3X,9HLONGITUDE,7X,5HYIELD/
21X,2(4X,8HNUMBER),15X,5HTIMES,2(2X,8HDESTROYED),2(4X DEG,4H MIN,4H
3 SEC),2X,8HKILOTONS)
PRINT 69,I,I,IG(I),KORR(I),TOA(I),DE(I),TIMEVAL(I),NLTD(I),
1NLTM(I),NLTS(I),NLND(I),NLNM(I),NLNS(I),YY(I),Z,I,NUM)
69 FORMAT(2X,3I10,4F10.4,614,F16.2)
GO TO NBADPRNT
75 CONTINUE
IF (NUM.EQ.0) 700, 701
700 SURV= 1.0 $ VALDES=VALESC=PLANLYD=DELYLD=0.
701 SAVE = CTMULT
2220 CTMULT = 1.
2221 CONTINUE
SURVTYPE(INDTYPE) = (SURVTYPE(INDTYPE)+(NOTYPE(INDTYPE)=CTMULT)
1+SURV*CTMULT)/NOTYPE(INDTYPE)
VDESTYPE(INDTYPE)=VDESTYPE(INDTYPE)+VALDES*CTMULT
VSCSTYPE(INDTYPE)=VSCSTYPE(INDTYPE)+VALESC*CTMULT
VHEMTYPE(INDTYPE)=VHEMTYPE(INDTYPE)+VTO*VALESC*VALESC*CTMULT
DESTNO(INDTYPE)=DESTNO(INDTYPE)+CTMULT*(1-SURV)*VTO
116 SKEDTYPE(INDTYPE)=SKEDTYPE(INDTYPE)+PLANLYD
DELYTE(INDTYPE)=DELYTE(INDTYPE)+DELYLD
120 CTMULT =SAVE $ GO TO NEXT
122 IF(JOPT(I).EQ.1) GO TO 123
123 CALL TERMTAPE
CALL TERMTAPE
ITP=SCRATCH
CALL TERMTAPE
KKK =JTOTS-NMSRE

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PRINT 777, JTOTS, KKK, NMBRE
777 FORMAT (//20X, 30(1H+), 5X, 9HTHERE ARE, 16, 17H TARGETS OF WHICH, 16, 25H
1 ARE ASSIGNED WEAPONS AND, 16, 15H ARE LEFT ALONE)
CALL PAGESKP
LNO=0
PRINT 130
LNO=LNO+2
130 FORMAT (/47X, 26HTARGET DESTRUCTION SUMMARY)
LNO=LNO+3
131 FORMAT (/26X, 49H1-----REAL ESTATE (NTS)-----I,
12X, 27HPERCENT OF QUICK VALUE (TS), 3X, 6HTARGET, 6X,
26HNO. OF 5X, 5HTOTAL, 5X, 5HVALUE, 6X, 7HPERCENT, 3X, 7HPERCENT, 3X,
3THOSTRYED, 3X, 7HESCAPED, 3X, 7HREMAINING, 2X, 8HMEGATONS, 3X,
43X, 5HCLASS, 6X, 4HTYPE, 7X, 7HTARGETS, 1X, 11HORTGNL VLU, 1X,
5THOSTRYED, 3X, 7HDSYRED, 3X, 7HSTRVING, 32X, 8HSC DULED, 3X, 8HDELIVERD)
DO 140 L = 1, NUMTYPE
PCDEST(L) = 100. * DESTNO(L) / VOTYPE(L)
SURVTYPE(L) = 1. * PCDEST(L) / 100.
K=CLAS(TYPE(L))
NOFCLAS(K) = NOFCLAS(K) + NO(TYPE(L))
VOCLAS(K) = VOCLAS(K) + VOTYPE(L)
VDESCLAS(K) = VDESCLAS(K) + VDESTTYPE(L)
VESCLAS(K) = VESCLAS(K) + VESCTYPE(L)
VREMCLAS(K) = VREMCLAS(K) + VRENTYPE(L)
SKEDCLAS(K) = SKEDCLAS(K) + SKEDTYPE(L)
DELCCLAS(K) = DELCCLAS(K) + DELTYPE(L)
DESTNOCL(K) = DESTNOCL(K) + DESTNO(L)
KCLSNBL(K) = KCLSNBL(K) + KT/PSNBL(L)
KCLSCOMP(K) = KCLSCOMP(K) + KTYPCOMP(L)
140 CONTINUE
DO 160 K = 1, NUMCLAS
FOEST = 100. * VDESCLAS(K) / VOCLAS(K)
FESC = 100. * VESCLAS(K) / VOCLAS(K)
FREM = 100. * VREMCLAS(K) / VOCLAS(K)
IF (VOCLAS(K).LT.1.E-8) 3011, 3012
3011 FOEST=FESC=FREM=0.
3012 CONTINUE
PCDESTCL(K) = 100. * PCDESTCL(K) / VOCLAS(K)
SURVCLAS(K) = 100. * PCDESTCL(K)
PRINT 142, NAMECLAS(K), NOFCLAS(K), VOCLAS(K), DESTNOCL(K),
1PCDESTCL(K), SURVCLAS(K), FDEST, FESC, FREM, SKEDCLAS(K), DELCCLAS(K)
LNO=LNO+3
IF (LNO=56) 217, 218, 216
218 LNO=6 SCALL PAGESKP
PRINT 131 $ LNO=LNO+3
217 CONTINUE
142 FORMAT (/2X, 48, 2X, 3HALL, 6X, 18, 2X, 9(F10.2))
DO 156 LL=1, NUMTYPE
IF (CLAS(TYPE(LL)).EQ.K) 144, 156
144 FOEST = 100. * VDESTTYPE(LL) / VOTYPE(LL)
FESC = 100. * VESCTYPE(LL) / VOTYPE(LL)
FREM = 100. * VRENTYPE(LL) / VOTYPE(LL)
IF (VOTYPE(LL).LT.1.E-8) 3015, 3016
3015 FOEST=FESC=FREM=0.
3016 CONTINUE

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SURVTYPE(ILL) = 100.0 * SURVTYPE(ILL)
PRINT 145, NAME TYPE(ILL), NOFTYPE(ILL), VOTYPE(ILL), DESTNO(ILL),
1 PCDEST(ILL), SURVTYPE(ILL), FDEST, FESC, FREM, SKEDTYPE(ILL), DELTYPE(ILL),
  LNO=LNO+2
IF (LNO=56) 219, 220, 222
220 LNO=0 SCALL PAGESKP
PRINT 131 $ LNO=LNO+3
219 CONTINUE
145 FORMAT (/12X,A3,1X,I8,2X,9(F10.2))
156 CONTINUE
VOTOT = VOTOT + VOCLAS(K)
NOFTOT = NOFTOT + NOFCLAS(K)
VDESTOT = VDESTOT + VDESCLAS(K)
VESCOTOT = VESCOTOT + VESCCLAS(K)
VREMTOT = VREMTOT + VREMCCLAS(K)
SURVTOT = SURVTOT + SURVCLAS(K)
DELTOT = DELTOT + DELCLAS(K)
SKEDTOT = SKEDTOT + SKEDCLAS(K)
DESTOT = DESTOT + DESTNOCL(K)
160 CONTINUE
FDEST = 100.0 * VDESTOT / VOTOT
FESC = 100.0 * VESCOTOT / VOTOT
FREM = 100.0 * VREMTOT / VOTOT
PCDESTOT = 100.0 * VDESTOT / VOTOT
SURVTOT = 100.0 * PCDESTOT
PRINT 161, NOFTOT, VOTOT, DESTOT, PCDESTOT, SURVTOT, FDEST, FESC, FREM,
1 SKEDTOT, DELTOT
161 FORMAT (22X,9(2X,8H-----),3X,8H-----/5X,6HTOTALS,10X,
  119,2X,9(F10.2))
IF (NPASS.EQ.1) 164, 182
164 CONTINUE
CALL PAGESKP
LNO=0
PRINT 165
165 FORMAT (/38X,29HSCHEDULE OF WEAPONS ALLOCATED,/38X,29(1H*))
LNO=LNO+4
PRINT 501 $ LNO=LNO+4
500 FORMAT (/215X,6HTARGET,1X,4X,6HNUMBER,5X,5H1ALERT,1X,9HNON-ALERT,
  16X,4HSLBM,6X,4HICBM,5X,3HTAC,8X,4HMRBM,6X,4HIRBM,4X,6HHEAPON/6X,
  25HCLASS,7X,4HTYPE,16X,3HLRA,6X,3HLRA,26X,7HROMBERS,25X,6HTOTALS)
399 FORMAT (/215X,6HTARGET,1X,4X,6HNUMBER,6X,5H1ALERT,4X,9HNON-ALERT,
  16X,4HSLBM,8X,4HICBM,7X,3HTAC,10X,4HMRBM, 8X,4HIRBM,
  26X,5HCLASS,7X,4HTYPE,20X,3HLRA,6X,3HLRA,32X,7HROMBERS)
NTOTS=NTOTS+0
DO 175 IK=1,NUMCLAS
NTOTS=NTOTS+KCLSCOMP(IK) SNTOTS=NTOTS+KCLSNGL(IK)
DO 410 IWP=1,NOWPNS
410 NSUMCLAS(IK)=NSUMCLAS(IK)+NALLCLAS(IWP,IK)
PRINT 169, NAMECLAS(IK), NOFCLAS(IK), KCLSNGL(IK), KCLSCOMP(IK),
  1 NALLCLAS(IW,IK), IW=1, NOWPNS, NSUMCLAS(IK)
LNO=LNO+3
IF (LNO=56) 221, 222, 222
222 LNO=0 SCALL PAGESKP
PRINT 501 $ LNO=LNO+4
221 CONTINUE
169 FORMAT (/1X,A9,2X,3HALL,7X,318.8F9.2)

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DO 173 IL=1,NUMTYPE
  IF (CLASTYPE(IL).EQ.IK) 170,173
170 DO 411 IWP=1,NOMPNS
411 NSUMTYPE(IL)=NSUMTYPE(IL)+NALLTYPE(IWP,IL)
  PRINT 171,NAMETYPE(IL),NOFTYPE(IL),KTYPSNGL(IL),KTYPCOMP(TL), (NALL
    TYPE(IL),IW=1,NOMPNS),NSUMTYPE(IL)
  LNO=LNO+1
  IF (LNO-56) 223,223,224
224 LNO=0 $CALL PAGESKP
  PRINT 501 $ LNO=LNO+4
223 CONTINUE
171 FORMAT(11X,A9,2X,310,8F9.2)
173 CONTINUE
175 CONTINUE
  IWPNS=0
501 FORMAT(//1X,2(4X,6HTARGET),3X,5HTOTAL,1X,15HNUMBER ATTACKED,4X,5HA
  ILERT,1X,6HNONALERT,5X,4HSLRN,5X,4HICBM,1X,6HTACTICAL,5X,4HMRBM,
  2X,4HIRBM,2X,6HWEAPON/6X,5HCLASS,6X,4HTYPE,2X,6HNUMBER,3X,5HSLONE,
  31X,7HCOMPLEX,2(6X,3MLRA),20X,7HROMBERS,21X,6HTOTALS)
  DO 176 IK=1,NUMCLAS
  DO 176 IWP=1,NOMPNS
  NWPNTYP(IW)=NWPNTYP(IW)+NALLCLAS(IW,IK)
  IWPNS=IWPNS+NWPNTYP(IW)
176 CONTINUE
178 CONTINUE
177 PRINT 177,NTOTS,NTOTC, (NWPNTYP(IW),IW=1,NOMPNS),IWPNS
177 FORMAT(15X,6HTOTALS,6X,2(2X,6H-----),8(2X,7H-----)/29X,210,
  18F9.2)
  CALL PAGESKP
  LNO=0
  PRINT 565
565 FORMAT(//30X,20HSCHEDULE OF WEAPONS DELIVERED,/30X,29(1H*))
  LNO=LNO+4
  PRINT 500
  LNO=LNO+4
  DO 575 IK=1,NUMCLAS
  DO 575 IWP=1,NOMPNS
  DO 575 IWP=1,NOMPNS
  SUMCLAS(IK)=SUMCLAS(IK)+ALLCLAS(IWP,IK)
  PRINT 569,NAMECLAS(IK),NOFCLAS(IK), (ALLCLAS(IW,IK),IW=1,NOMPNS),
  1SUMCLAS(IK)
  LNO=LNO+3
  IF (LNO-56) 225,225,226
226 LNO=0 $CALL PAGESKP
  PRINT 500 $ LNO=LNO+4
225 CONTINUE
569 FORMAT(//4X,A8,5X,3HALL,4X,110,8F10.2)
  DO 573 IL=1,NUMTYPE
  IF (CLASTYPE(IL).EQ.IK) 570,573
570 DO 511 IWP=1,NOMPNS
511 SUMTYPE(IL)=SUMTYPE(IL)+ALLTYPE(IWP,IL)
  PRINT 571,NAMETYPE(IL),NOFTYPE(IL), (ALLTYPE(IW,IL),IW=1,NOMPNS),
  1SUMTYPE(IL)
  LNO=LNO+1
  IF (LNO-56) 227,227,228
228 LNO=0 $CALL PAGESKP
  PRINT 500 $ LNO=LNO+4

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227 CONTINUE
571 FORMAT(16X,A8,I10,8F10.2)
573 CONTINUE
575 CONTINUE
      WPNS=0
      DO 576 IW=1,NOWPNS
        WPNTYP(IW)=WPNTYP(IW)+ALLCLAS(IW,IK)
576 CONTINUE
      WPNS=WPNS+WPNTYP(IW)
578 CONTINUE
577 PRINT 577,(WPNTYP(IW),IW=1,NOWPNS),WPNS
577 FORMAT(34X,6(4X,6H-----),/10X,18HWEAPON TYPE TOTALS,6X,8F10.2)
      CALL PAGESKP
      PRINT 485
485 FORMAT(10X,40HALLOWABLE WEAPON TYPE NAMES FOR WPMMODIF)
      PRINT 486,(NAMEWP(I),I=1,NTYPES)
486 FORMAT(10(2X,A8))
      CALL PAGESKP
      LNO=0
250 PRINT 250
      FORMAT(/,/41X,21HSCHEDULED MEGATONNAGE,/41X,25(1H*))
      LNO=LNO+4
      LNO=LNO+4
      DO 270 IW=1,NUMCLAS
        PRINT 251,NAMECLAS(IK),NOFCLAS(IK),(SKDWPCL(IW,IK),IW=1,NOWPNS)
        LNO=LNO+3
        IF(LNO=56)229,229,230
230 LNO=0 SCALL PAGESKP
      PRINT 399 $ LNO=LNO+4
229 CONTINUE
251 FORMAT(/,/4X,A8,5X,3HALL,4X,I11,7F12.2)
      DO 268 IL=1,NUMTYPE
        IF(ILASTYPE(IL),EQ,IK)256,268
256 PRINT 257,NAMEYPE(IL),NOFTYPE(IL),(SKDWPYP(IW,IL),IW=1,NOWPNS)
        LNO=LNO+1
        IF(LNO=56)231,231,232
232 LNO=0 SCALL PAGESKP
      PRINT 399 $ LNO=LNO+4
231 CONTINUE
257 FORMAT(16X,A8,I11,7F12.2)
268 CONTINUE
270 CONTINUE
      DO 272 IW=1,NOWPNS
        DO 272 IK=1,NUMCLAS
          SKEDALL(IW)=SKEDALL(IW)+SKDWPCL(IW,IK)
272 CONTINUE
      PRINT 273,(SKEDALL(IW),IW=1,NOWPNS)
273 FORMAT(35X,7(6X,6H-----),/10X,18HMEGATONNAGE TOTALS,7X,7F12.2)
      CALL PAGESKP
      LNO=0
      PRINT 290
      LNO=LNO+2
290 FORMAT(/,/41X,21HDELIVERED MEGATONNAGE,/41X,21(1H*))

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```

PRINT 399
LNO=LNO+1
LNO=LNO+3
DO 370 IK=1,NUMCLAS
PRINT 351,NAMECLAS(IK),NOFCLAS(IK), (DELWPCL(IW,IK),IW=1,NOMPNS)
LNO=LNO+3
IF (LNO-56) 233,233,234
234 LNO=0 SCALL PAGESKP
PRINT 399 $ LNO=LNO+4
233 CONTINUE
351 FORMAT(//4X,A8,5X,3HALL,4X,I11,7F12.2)
DO 368 IL=1,NUMTYPE
IF (CLASTYPE(IL).EQ.IK) 356,368
356 PRINT 357,NAMECTYPE(IL),NOFTYPE(IL), (DELWPTYP(IW,IL),IW=1,NOMPNS)
LNO=LNO+1
IF (LNO-56) 235,235,236
236 LNO=0 SCALL PAGESKP
PRINT 399 $ LNO=LNO+4
235 CONTINUE
357 FORMAT(16X,A8,I11,7F12.2)
368 CONTINUE
370 CONTINUE
DO 372 IW=1,NOMPNS
DO 372 IK=1,NUMCLAS
DELALL(IW)=DELALL(IW)+DELWPCL(IW,IK)
372 CONTINUE
PRINT 373, (DELALL(IW),IW=1,NOMPNS)
373 FORMAT(35X,7(6X,6H-----),/10X,18HWEIGHT TONNAGE TOTALS,7X,7F12.2)
GO TO 182
1099 PRINT 1101,NINDIC
1101 FORMAT(//2X,18H THERE ARE TOO MANY,2X,A8)
GO TO 180
1199 PRINT 1201,NINDIC,INDEXNO,NAME
ASSIGN 180 TO NBRADPRINT
1201 FORMAT(//2X,18H WE HAVE OVERFLOWED,2X,A8,2X,16H ON TARGET NUMBER,110
1,2X,5H NAMED,2X,A8)
GO TO 66
182 NPASS=NPASS+1
ITGTINDX =0
GO TO 5
180 END

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IDENT EVAL2

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

| EVAL2   | IDENT | EVAL2 |
|---------|-------|-------|
| FILAREL | 06354 |       |
| ITP     | 02171 |       |
| MYIDENT | 00014 |       |
| MYLAREL | 00001 |       |
| NOPRINT | 00010 |       |
| TWORN   | 00301 |       |
| FILES   | 00001 |       |
| ORT     | 00020 |       |
| WPNMOD  | 00004 |       |
| TGTMOD  | 01442 |       |
| LAYLON  | 00346 |       |
| LITTLE  | 00074 |       |
| MIS     | 00013 |       |
| PLOT    | 00122 |       |
|         | 00076 |       |
|         | 27026 |       |

EXTERNAL SYMBOLS

THEND.  
Q80STOPS  
Q3000048  
Q1010100  
Q1003100  
Q1005100  
Q80DICT.  
SETREAD  
SKIP  
RDARRAY  
RDRORD  
SETWRITE  
PAGESKP  
WPNMODIF  
ORDER  
REORDER  
WRWORD  
WRARRAY  
TGTMOOIF  
ITL  
EVALPLAN  
TERMTAPE  
STM.  
ONSINGL.

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C16766 ALLCLAS  
C12144 ALLTYPE  
C00012 ALOCGRP  
C00006 ALOCTAR  
C00002 BASFILE  
P06207 BEGIN.  
C00000 BLAT  
C00035 BLON  
P00450 C  
  
C00000 CCREL  
C00061 CEP  
C01464 CLASTYPE  
  
P06250 CMULSYD  
P06061 CNVRT1.  
  
P06251 COUNT.  
  
P00505 CRFMT.  
  
C00006 CTMULT  
  
C01131 DBL  
C00245 DE  
C21111 DELALL  
C20344 DELCLAS  
P06252 DELTOT  
C20220 DELTYPE  
C10230 DELWACL  
C07354 DELWPTYP  
C00010 DELYLD  
C20530 DFSTMO  
C20426 DESTMOCL  
P06253 DESTOT  
P00001 DICT.

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 02457 | 02460 | 05072 | 05111 | 05111 | 05263 |       |       |       |       |
| 02417 | 02420 | 05165 | 05204 | 05204 |       |       |       |       |       |
| 02534 | 02534 | 02564 | 02564 | 03301 | 03301 | 04143 |       |       |       |
| 02210 | 02211 | 03213 | 03213 |       |       |       |       |       |       |
| 06210 |       |       |       |       |       |       |       |       |       |
| 02716 | 03205 | 03657 | 03657 |       |       |       |       |       |       |
| 02721 | 03206 | 03702 | 03702 |       |       |       |       |       |       |
| 03311 | 03313 | 03315 | 03317 | 03321 | 03325 | 03327 | 03363 | 03400 | 03495 |
| 03407 | 03411 |       |       |       |       |       |       |       |       |
| 02240 |       |       |       |       |       |       |       |       |       |
| 02246 |       |       |       |       |       |       |       |       |       |
| 02373 | 02373 | 03467 | 04224 | 04345 | 04345 | 04657 | 04657 | 05151 | 05151 |
| 05452 | 05452 | 05677 | 05677 |       |       |       |       |       |       |
| 02663 | 03246 | 03247 |       |       |       |       |       |       |       |
| 02740 | 02742 | 02752 | 02754 | 02774 | 02776 | 03006 | 03116 | 03120 | 03121 |
| 03743 | 03745 | 03747 | 03750 | 03751 | 03752 | 03753 | 03754 | 03755 | 03760 |
| 03761 | 03763 | 03765 | 03767 | 03770 | 04015 | 04017 | 04020 | 04021 | 04022 |
| 04024 | 04026 | 04027 | 04030 | 04031 | 04032 | 04033 | 04034 | 04061 | 04062 |
| 04303 | 04304 | 04305 | 04306 | 04307 | 04310 | 04313 | 04314 | 04316 | 04317 |
| 04377 | 04400 | 04401 | 04402 | 04403 | 04404 | 04406 | 04407 | 04410 | 04412 |
| 04511 | 04512 | 04513 | 04514 | 04515 | 04516 | 04517 | 04520 | 04521 | 04522 |
| 04607 | 04610 | 04611 | 04620 | 04627 | 04703 | 04704 | 04705 | 04706 | 04724 |
| 05012 | 05013 | 05021 | 05027 | 05132 | 05132 | 05132 | 05175 | 05176 | 05205 |
| 05214 | 05307 | 05315 | 05342 | 05406 | 05416 | 05463 | 05464 | 05473 | 05565 |
| 05633 | 05634 | 05643 | 05710 | 05711 | 05720 | 06012 | 06027 | 06040 | 06044 |
| 02356 | 02357 | 02411 | 02413 | 02455 | 02456 | 03655 | 03656 | 04214 | 04372 |
| 04574 | 04667 | 04671 | 04767 | 04771 | 05066 | 05070 | 05161 | 05163 | 05261 |
| 05541 | 05543 | 05766 | 05770 |       |       |       |       |       |       |
| 02345 | 02554 | 02745 | 02757 | 03001 | 03013 | 03124 | 03733 | 03773 | 04042 |
| 04166 | 04202 | 04212 | 04342 | 04436 | 04525 | 04541 | 04553 | 04652 | 04747 |
| 04760 | 05032 | 05044 | 05144 | 05237 | 05320 | 05330 | 05351 | 05363 | 05445 |
| 05574 | 05611 | 05672 | 05747 | 06021 | 06032 | 06051 |       |       |       |
| 02662 | 02662 | 03025 | 03025 | 03034 | 03034 | 03221 | 03221 | 03312 | 03470 |
| 03470 | 03476 | 03476 | 03504 | 03504 | 03510 | 03510 | 03526 | 03537 | 03537 |
| 03543 | 03543 | 03733 | 03733 | 04054 | 04054 | 04062 | 04062 | 04070 | 04074 |
| 04102 | 04105 | 04111 | 04115 | 04131 | 04131 |       |       |       |       |
| 02312 | 02361 | 02361 |       |       |       |       |       |       |       |
| 04023 |       |       |       |       |       |       |       |       |       |
| 02415 | 02415 | 05771 | 05771 | 05772 | 06011 | 06011 |       |       |       |
| 02414 | 02437 | 04240 | 04317 | 04461 | 04461 |       |       |       |       |
| 02443 | 04460 | 04462 | 04522 |       |       |       |       |       |       |
| 02500 | 04460 | 04462 | 04522 |       |       |       |       |       |       |
| 02375 | 04125 | 04126 | 04127 | 04240 | 04413 |       |       |       |       |
| 02461 | 05642 | 05642 | 05772 |       |       |       |       |       |       |
| 02421 | 05717 | 05717 |       |       |       |       |       |       |       |
| 04051 | 04125 | 04126 |       |       |       |       |       |       |       |
| 02402 | 04117 | 04117 | 04120 | 04217 | 04217 | 04241 | 04402 |       |       |
| 02447 | 04241 | 04242 | 04272 | 04273 | 04306 | 04466 |       |       |       |
| 02477 | 04465 | 04467 | 04501 | 04513 |       |       |       |       |       |
| 02173 | 02216 | 02220 | 02223 | 02226 | 02231 | 02234 | 02237 | 02242 | 02245 |
| 02253 | 02256 | 02261 | 02264 | 02267 | 02272 | 02275 | 02300 | 02303 | 02311 |
| 02314 | 02317 | 02322 | 02325 | 02330 | 02330 | 02347 | 02347 | 02347 | 02350 |
| 02533 | 02541 | 02543 | 02550 | 02553 | 02550 | 02551 | 02572 | 02575 | 02583 |
| 02706 | 02715 | 02720 | 02735 | 02744 | 02747 | 02756 | 02771 | 03000 | 03012 |



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|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P06211 | ENDING.  | 03063 | 03072 | 03113 | 03123 | 03135 | 03137 | 03142 | 03145 | 03150 | 03162 | 03164 |
| P02171 | EVAL2    | 03167 | 03172 | 03175 | 03201 | 03226 | 03234 | 03304 | 03435 | 03437 | 03452 | 03573 |
| X0C025 | EVALPLAN | 03601 | 03604 | 03741 | 03772 | 04002 | 04005 | 04010 | 04041 | 04142 | 04146 | 04152 |
| C00016 | EVENTAPE | 04157 | 04165 | 04167 | 04174 | 04177 | 04204 | 04207 | 04301 | 04321 | 04331 | 04334 |
| P00000 | EXIT.    | 04337 | 04375 | 04415 | 04425 | 04430 | 04433 | 04507 | 04524 | 04530 | 04535 | 04540 |
| P06254 | FDEST    | 04545 | 04550 | 04602 | 04631 | 04641 | 04644 | 04647 | 04677 | 04726 | 04736 | 04741 |
| P00505 | FORMAT.  | 04744 | 05007 | 05031 | 05033 | 05040 | 05043 | 05050 | 05053 | 05076 | 05123 | 05133 |
| P06256 | FREM     | 05136 | 05141 | 05171 | 05216 | 05226 | 05231 | 05234 | 05277 | 05317 | 05321 | 05324 |
| C00501 | FUNC     | 05327 | 05332 | 05350 | 05352 | 05357 | 05362 | 05367 | 05372 | 05402 | 05424 | 05434 |
| C00010 | FVAL     | 05437 | 05442 | 05457 | 05501 | 05511 | 05514 | 05517 | 05555 | 05573 | 05575 | 05582 |
| P06257 | FVALM1   | 05604 | 05613 | 05616 | 05627 | 05651 | 05661 | 05664 | 05667 | 05704 | 05726 | 05736 |
| P02345 | G00000.  | 05741 | 05744 | 06002 | 06020 | 06024 | 06031 | 06035 |       |       |       |       |
| P02554 | G00001.  | 06212 | 06217 | 06056 | 06207 | 06210 |       |       |       |       |       |       |
| P02745 | G00002.  | 06254 | 06257 |       |       |       |       |       |       |       |       |       |
| P02757 | G00003.  | 06257 | 06261 |       |       |       |       |       |       |       |       |       |
| P03001 | G00004.  | 06267 | 06267 | 04314 | 04361 | 04366 | 04410 | 04500 |       |       |       |       |
| P03013 | G00005.  | 06270 | 06273 | 04311 | 04353 | 04367 | 04405 | 04474 | 04516 | 04575 | 02603 | 02722 |
| P03124 | G00006.  | 06275 | 06275 | 04313 | 04356 | 04366 | 04407 | 04476 | 04517 | 02575 | 02603 |       |
| P03605 | G00007.  | 06275 | 06275 | 04334 | 04505 | 04514 | 04523 | 04536 | 04551 | 03564 |       |       |
| P03773 | G00010.  | 06275 | 06275 | 04314 | 04361 | 04366 | 04410 | 04500 | 04520 |       |       |       |
| P04006 | G00011.  | 06275 | 06275 | 04311 | 04353 | 04367 | 04405 | 04474 | 04516 |       |       |       |
| P04042 | G00012.  | 06275 | 06275 | 04313 | 04356 | 04366 | 04407 | 04476 | 04517 |       |       |       |
| P04166 | G00013.  | 06275 | 06275 | 04334 | 04505 | 04514 | 04523 | 04536 | 04551 |       |       |       |
| P04200 | G00014.  | 06275 | 06275 | 04314 | 04361 | 04366 | 04410 | 04500 | 04520 |       |       |       |
| P04210 | G00015.  | 06275 | 06275 | 04311 | 04353 | 04367 | 04405 | 04474 | 04516 |       |       |       |
| P04322 | G00016.  | 06275 | 06275 | 04313 | 04356 | 04366 | 04407 | 04476 | 04517 |       |       |       |
| P04340 | G00017.  | 06275 | 06275 | 04334 | 04505 | 04514 | 04523 | 04536 | 04551 |       |       |       |
| P04416 | G00020.  | 06275 | 06275 | 04314 | 04361 | 04366 | 04410 | 04500 | 04520 |       |       |       |
| P04434 | G00021.  | 06275 | 06275 | 04311 | 04353 | 04367 | 04405 | 04474 | 04516 |       |       |       |
| P04525 | G00022.  | 06275 | 06275 | 04313 | 04356 | 04366 | 04407 | 04476 | 04517 |       |       |       |
| P04541 | G00023.  | 06275 | 06275 | 04334 | 04505 | 04514 | 04523 | 04536 | 04551 |       |       |       |
| P04551 | G00024.  | 06275 | 06275 | 04314 | 04361 | 04366 | 04410 | 04500 | 04520 |       |       |       |
| P04632 | G00025.  | 06275 | 06275 | 04311 | 04353 | 04367 | 04405 | 04474 | 04516 |       |       |       |
| P04650 | G00026.  | 06275 | 06275 | 04313 | 04356 | 04366 | 04407 | 04476 | 04517 |       |       |       |
| P04727 | G00027.  | 06275 | 06275 | 04334 | 04505 | 04514 | 04523 | 04536 | 04551 |       |       |       |
| P04745 | G00030.  | 06275 | 06275 | 04314 | 04361 | 04366 | 04410 | 04500 | 04520 |       |       |       |
| P05032 | G00031.  | 06275 | 06275 | 04311 | 04353 | 04367 | 04405 | 04474 | 04516 |       |       |       |
| P05044 | G00032.  | 06275 | 06275 | 04313 | 04356 | 04366 | 04407 | 04476 | 04517 |       |       |       |
| P05054 | G00033.  | 06275 | 06275 | 04334 | 04505 | 04514 | 04523 | 04536 | 04551 |       |       |       |

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|        |          |          |       |
|--------|----------|----------|-------|
| P05124 | G000034. | G000034. | 05074 |
| P05142 | G000035. | G000035. | 05134 |
| P05217 | G000036. | G000036. | 05167 |
| P05235 | G000037. | G000037. | 05227 |
| P05320 | G000040. | G000040. | 05274 |
| P05330 | G000041. | G000041. | 05322 |
| P05351 | G000042. | G000042. | 05330 |
| P05363 | G000043. | G000043. | 05355 |
| P05373 | G000044. | G000044. | 05365 |
| P05425 | G000045. | G000045. | 05400 |
| P05443 | G000046. | G000046. | 05435 |
| P05502 | G000047. | G000047. | 05455 |
| P05520 | G000050. | G000050. | 05512 |
| P05574 | G000051. | G000051. | 05555 |
| P05617 | G000052. | G000052. | 05600 |
| P05617 | G000053. | G000053. | 05611 |
| P05652 | G000054. | G000054. | 05625 |
| P05670 | G000055. | G000055. | 05662 |
| P05727 | G000056. | G000056. | 05702 |
| P05745 | G000057. | G000057. | 05737 |
| P06021 | G000060. | G000060. | 06000 |
| P06032 | G000061. | G000061. | 06022 |
| P06047 | G000062. | G000062. | 06033 |
| C00003 | H        |          | 02627 |
| P06260 | I        |          | 02354 |
| C00334 | I        | FALEI    | 02307 |
| C00345 | I        | IBINDX   |       |
| P06291 | IC       |          | 02430 |
| P06292 | IC       |          | 02576 |
| C00121 | ICLASS   |          | 02254 |
| P02374 | IF00001. |          |       |
| P03104 | IF00002. |          | 02673 |
| P03260 | IF00003. |          | 03366 |
| P03517 | IF00004. |          | 04555 |
| C00017 | IG       |          | 05117 |
| P06293 | IGOTO.   |          | 05700 |
| P06294 | IK       |          | 06553 |
| P06295 | IL       |          | 05237 |
| P06052 | IN00004. |          | 02412 |
| P06053 | IN00006. |          | 02456 |
| P06064 | IN00010. |          | 04573 |
| P06095 | IN00017. |          | 04616 |
| P06066 | IN00021. |          | 06153 |
| P06067 | IN00022. |          | 04670 |
| C00097 | INCOME.  |          | 04713 |
| C00092 | INDATE   |          |       |
| P06266 | INDC     |          | 03310 |
| C00098 | INDCLAS  |          | 03455 |
| C00090 | INDEXNO  |          | 02610 |
|        |          |          | 03157 |

|       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 02627 | 02631 | 02631 | 03326 | 03326 | 03330 | 03330 |       |
| 02326 | 03652 | 03655 | 04013 | 04014 | 04016 | 04035 |       |
| 02434 | 02463 | 02223 | 03227 | 03276 | 03423 | 06131 | 03762 |
| 02761 | 02775 | 03117 | 03335 | 03337 | 03515 | 03517 |       |
| 03075 | 03143 | 03170 | 03204 | 03725 | 03725 | 04016 | 04017 |
| 04561 | 04573 | 04604 | 04625 | 04600 | 04753 | 04764 | 05056 |
| 05152 | 05243 | 05254 | 05375 | 05494 | 05453 | 05526 | 05536 |
| 05753 | 05763 | 06146 |       |       |       |       |       |
| 04656 | 04676 | 04701 | 04722 | 04747 | 05145 | 05150 | 05162 |
| 05446 | 05451 | 05461 | 05522 | 05673 | 05676 | 05706 | 05747 |
| 06070 | 06102 | 06104 | 06116 |       |       |       |       |
| 06105 | 06120 | 06123 | 06135 |       |       |       |       |
| 05067 | 06137 | 06152 | 06155 | 06166 |       |       |       |
| 04770 | 05110 | 05260 | 05414 | 05562 | 05641 | 05767 | 06104 |
| 05162 | 06155 | 06167 | 06171 | 06204 |       |       |       |
| 05203 | 05471 | 05716 | 06105 | 06121 | 06172 | 06205 |       |
| 03331 | 03340 |       |       |       |       |       |       |
| 03455 | 03461 | 03461 | 03463 | 03463 | 03465 | 03465 | 03560 |
| 02610 | 02737 | 02737 | 02773 | 02773 | 03115 | 03115 | 03132 |
| 03240 | 03240 | 03274 | 03274 | 03341 | 03341 | 03341 | 06041 |

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|        |          |       |       |       |       |       |       |       |       |       |       |
|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C00342 | INDTYPE  | 03442 | 03442 | 03446 | 03446 | 03447 | 03466 | 03477 | 03477 | 03521 | 03521 |
| C00003 | INFORM   | 03532 | 03532 | 03544 | 03544 | 03552 | 03552 | 04063 | 04121 | 04121 |       |
| C00000 | INIDENT  |       |       |       |       |       |       |       |       |       |       |
| P06207 | INITIAL. | 02174 |       |       |       |       |       |       |       |       |       |
| C00006 | INLNTH   |       |       |       |       |       |       |       |       |       |       |
| C00001 | INRUNNO  |       |       |       |       |       |       |       |       |       |       |
| C00004 | INSECR   |       |       |       |       |       |       |       |       |       |       |
| C00005 | INTIME   |       |       |       |       |       |       |       |       |       |       |
| C00644 | IPAY     |       |       |       |       |       |       |       |       |       |       |
| C00024 | IREG     |       |       |       |       |       |       |       |       |       |       |
| P06267 | ISVDD    |       |       |       |       |       |       |       |       |       |       |
| P06270 | IT       |       |       |       |       |       |       |       |       |       |       |
| C00344 | ITGTINDX |       |       |       |       |       |       |       |       |       |       |
| C00001 | ITGTMAX  |       |       |       |       |       |       |       |       |       |       |
| P06271 | ITGTPT   |       |       |       |       |       |       |       |       |       |       |
| P06272 | ITGTPT   |       |       |       |       |       |       |       |       |       |       |
| X00024 | ITLF     |       |       |       |       |       |       |       |       |       |       |
| C00000 | ITP      |       |       |       |       |       |       |       |       |       |       |
| C00000 | ITVORO   |       |       |       |       |       |       |       |       |       |       |
| C00621 | ITYPE    |       |       |       |       |       |       |       |       |       |       |
| P06273 | IW       |       |       |       |       |       |       |       |       |       |       |
| P06274 | IWP      |       |       |       |       |       |       |       |       |       |       |
| P06057 | IWENS    |       |       |       |       |       |       |       |       |       |       |
| P00325 | IX       |       |       |       |       |       |       |       |       |       |       |
| P02417 | .10      |       |       |       |       |       |       |       |       |       |       |
| P02571 | .100001  |       |       |       |       |       |       |       |       |       |       |
| P02573 | .100002  |       |       |       |       |       |       |       |       |       |       |
| P02713 | .100003  |       |       |       |       |       |       |       |       |       |       |
| P02714 | .100004  |       |       |       |       |       |       |       |       |       |       |
| P03054 | .100005  |       |       |       |       |       |       |       |       |       |       |
| P03055 | .100006  |       |       |       |       |       |       |       |       |       |       |
| P03775 | .100007  |       |       |       |       |       |       |       |       |       |       |
| P04000 | .100008  |       |       |       |       |       |       |       |       |       |       |
| P04140 | .100009  |       |       |       |       |       |       |       |       |       |       |
| P04141 | .100010  |       |       |       |       |       |       |       |       |       |       |
| P02505 | .1020    |       |       |       |       |       |       |       |       |       |       |
| P02507 | .1021    |       |       |       |       |       |       |       |       |       |       |
| P03045 | .1040    |       |       |       |       |       |       |       |       |       |       |
| P03051 | .1041    |       |       |       |       |       |       |       |       |       |       |
| P03021 | .1044    |       |       |       |       |       |       |       |       |       |       |
| P03030 | .1045    |       |       |       |       |       |       |       |       |       |       |
| P03556 | .1060    |       |       |       |       |       |       |       |       |       |       |
| P03560 | .1061    |       |       |       |       |       |       |       |       |       |       |
| P03564 | .1070    |       |       |       |       |       |       |       |       |       |       |
| P03566 | .1071    |       |       |       |       |       |       |       |       |       |       |
| P03550 | .1080    |       |       |       |       |       |       |       |       |       |       |
| P03552 | .1081    |       |       |       |       |       |       |       |       |       |       |
| P06022 | .1099    |       |       |       |       |       |       |       |       |       |       |

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| P04130 .120  |       |       |       |       |
| P03111 .1210 |       |       |       |       |
| P03126 .1211 | 03107 | 03110 |       |       |
| P03436 .1215 | 03433 |       |       |       |
| P03434 .1216 | 03432 |       |       |       |
| P04135 .122  | 02605 |       |       |       |
| P04143 .123  | 04140 |       |       |       |
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| P04246 .140  |       |       |       |       |
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| P02457 .15   | 04347 |       |       |       |
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| P04747 .173  | 04661 |       |       |       |
| P04753 .175  |       |       |       |       |
| P04774 .176  |       |       |       |       |
| P05001 .178  |       |       |       |       |
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| P03207 .186  | 03056 | 03156 | 03177 |       |
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| P03421 .200  | 03270 |       |       |       |
| P03371 .202  | 03367 |       |       |       |
| P03374 .203  | 03367 |       |       |       |
| P03400 .204  | 03370 |       |       |       |
| P02512 .2048 | 02511 |       |       |       |
| P02521 .2049 | 02511 |       |       |       |
| P02542 .2050 | 02520 |       |       |       |
| P03405 .205  | 03373 | 03377 |       |       |
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| P03106 .213  | 03105 |       |       |       |
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| P04063 | .2221 | 04060 |       |       |       |
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| P05237 | .227  | 05221 | 05222 |       |       |
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| P05522 | .231  | 05504 | 05505 |       |       |
| P05506 | .232  |       |       |       |       |
| P05672 | .233  | 05654 | 05655 |       |       |
| P05856 | .234  |       |       |       |       |
| P05747 | .235  | 05731 | 05732 |       |       |
| P05733 | .236  |       |       |       |       |
| P05855 | .256  | 05454 |       |       |       |
| P05522 | .268  |       |       |       |       |
| P05526 | .270  |       |       |       |       |
| P05546 | .272  |       |       |       |       |
| P03336 | .277  | 03333 | 03333 |       |       |
| P03334 | .278  | 03332 |       |       |       |
| P03340 | .279  | 03335 |       |       |       |
| P02546 | .3    |       |       |       |       |
| P04286 | .3011 |       |       |       |       |
| P04271 | .3012 | 04265 | 04265 |       |       |
| P04365 | .3015 |       |       |       |       |
| P04370 | .3016 | 04364 | 04364 |       |       |
| P03732 | .3347 |       |       |       |       |
| P03651 | .3348 |       |       |       |       |
| P03733 | .3344 | 03650 |       |       |       |
| P05702 | .356  |       |       |       |       |
| P05747 | .368  | 05701 |       |       |       |
| P05753 | .370  |       |       |       |       |
| P05773 | .372  |       |       |       |       |
| P02767 | .377  | 03362 |       |       |       |
| P02554 | .4    | 02545 | 02545 |       |       |
| P04575 | .410  |       |       |       |       |
| P04672 | .411  |       |       |       |       |
| P02557 | .43   | 02555 | 02563 | 03231 | 03430 |
| P02564 | .44   | 02556 |       |       |       |
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| P02207 | .5    | 06055 |       |       |       |
| P03213 | .51   | 03211 | 03211 |       |       |
| P05071 | .510  |       |       |       |       |
| P05164 | .511  |       |       |       |       |
| P03256 | .52   | 03212 |       |       |       |
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| P03542 | .529     | 03514 | 03262 |       |       |       |       |
| P03265 | .53      | 03257 |       |       |       |       |       |
| P03263 | .54      | 03261 |       |       |       |       |       |
| P03154 | .570     |       |       |       |       |       |       |
| P05237 | .573     | 05153 |       |       |       |       |       |
| P05243 | .575     |       |       |       |       |       |       |
| P05264 | .576     |       |       |       |       |       |       |
| P05271 | .576     |       |       |       |       |       |       |
| P02745 | .617     |       |       |       |       |       |       |
| P03001 | .618     |       |       |       |       |       |       |
| P02722 | .6200    |       |       |       |       |       |       |
| P03017 | .6201    |       |       | 02726 | 02763 | 02766 | 02766 |
| P02727 | .6202    |       |       |       |       |       |       |
| P03347 | .621     |       |       | 03345 | 03345 |       |       |
| P03363 | .624     |       |       | 03361 | 03361 |       |       |
| P03577 | .66      |       |       |       |       |       |       |
| P04047 | .700     |       |       |       |       |       |       |
| P04054 | .701     |       |       |       |       |       |       |
| P02363 | .7021    |       |       |       |       |       |       |
| P02337 | .7100    |       |       |       |       |       |       |
| P02353 | .7101    |       |       |       |       |       |       |
| P02350 | .7102    |       |       |       |       |       |       |
| P02360 | .7103    |       |       |       |       |       |       |
| P04045 | .75      |       |       | 03576 | 03576 |       |       |
| P03444 | .77      |       |       |       |       |       |       |
| P03457 | .78      |       |       |       |       |       |       |
| P03465 | .79      |       |       |       |       |       |       |
| P03470 | .80      |       |       |       |       |       |       |
| P03572 | .85      |       |       |       |       |       |       |
| P06213 | .ERASER. |       |       | 04075 |       |       |       |
| P05505 | ..100000 |       |       |       |       |       |       |
| P05526 | ..1      |       |       |       |       |       |       |
| P00506 | ..100001 |       |       |       |       |       |       |
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| P05525 | ..100006 |       |       |       |       |       |       |
| P05544 | ..100007 |       |       |       |       |       |       |
| P05545 | ..100008 |       |       |       |       |       |       |
| P05546 | ..100009 |       |       |       |       |       |       |
| P05547 | ..100010 |       |       |       |       |       |       |
| P00550 | ..100011 |       |       |       |       |       |       |
| P00633 | ..100012 |       |       |       |       |       |       |
| P00634 | ..100013 |       |       |       |       |       |       |
| P00635 | ..100014 |       |       |       |       |       |       |
| P00657 | ..100015 |       |       |       |       |       |       |
| P00660 | ..100016 |       |       |       |       |       |       |
| P00661 | ..100017 |       |       |       |       |       |       |
| P00662 | ..100018 |       |       |       |       |       |       |
| P00663 | ..100019 |       |       |       |       |       |       |
| P00664 | ..100020 |       |       |       |       |       |       |
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| C00000 | NOPRINT  | 04227 | 04400 | 04704 | 05176 | 05464 | 05711 | 04570 | 04523 | 04623 | 04665 |
| C00011 | NOPRINT  | 02204 | 02204 | 02407 | 02407 | 02453 | 02453 | 04570 | 04570 | 04523 | 04665 |
|        |          | 04665 | 04720 | 04720 | 05003 | 05003 | 05024 | 05024 | 05064 | 05115 | 05115 |
|        |          | 05157 | 05157 | 05210 | 05210 | 05273 | 05273 | 05312 | 05312 | 05421 | 05421 |
|        |          | 05476 | 05551 | 05551 | 05570 | 05570 | 05646 | 05646 | 05723 | 05776 | 05776 |
|        |          | 06015 | 06015 | 06205 | 06205 | 06254 | 06254 | 06355 | 06355 | 06431 | 06431 |
| C01441 | NPASS    | 04525 | 05052 | 06052 | 06053 |       |       |       |       |       |       |
| P06325 | NREOMX   | 02201 | 02240 | 04575 | 04575 | 04526 | 04526 |       |       |       |       |
| C20572 | NSUMCLAS | 02446 | 04575 | 04575 | 04575 | 04723 | 04723 |       |       |       |       |
| C25350 | NSUMTYPE | 02401 | 04672 | 04672 | 04672 | 04723 | 04723 |       |       |       |       |
| P00363 | NT       | 02602 | 02603 | 02606 | 02607 | 02611 | 02624 | 02636 | 02654 | 02655 | 02657 |
|        |          | 03766 |       |       |       |       |       |       |       |       |       |
| P06326 | NTGLND   | 03631 | 03634 | 03753 |       |       |       |       |       |       |       |
| P06327 | NTGLNW   | 03640 | 03643 | 03754 |       |       |       |       |       |       |       |
| P06330 | NTGLNS   | 03646 | 03755 |       |       |       |       |       |       |       |       |
| P06331 | NTGLTO   | 03611 | 03614 | 03750 |       |       |       |       |       |       |       |
| P06332 | NTGLTM   | 03620 | 03623 | 03751 |       |       |       |       |       |       |       |
| P06333 | NTGLTS   | 03626 | 03752 |       |       |       |       |       |       |       |       |
| P06334 | NTGLTPHX | 02176 | 02626 | 03553 |       |       |       |       |       |       |       |
| P06335 | NTOTC    | 04554 | 04560 | 04563 | 05013 |       |       |       |       |       |       |
| P06336 | NTOTS    | 04553 | 04563 | 04565 | 05011 |       |       |       |       |       |       |
| C00341 | NTYPE    | 02656 | 02656 | 03104 | 03106 |       |       |       |       |       |       |
|        |          | 03415 | 03440 | 03447 | 03447 | 03124 | 03125 | 03154 | 03154 | 03265 | 03415 |
| C00000 | NTYPES   | 02501 | 02501 | 05345 | 05345 |       |       |       |       |       |       |
| C00016 | NUM      | 02664 | 02665 | 02673 | 02676 | 02701 | 02704 | 02707 | 02707 | 02721 | 03017 |
|        |          | 03041 | 03041 | 03047 | 03047 | 03057 | 03057 | 03057 | 03057 | 03140 | 03146 |
|        |          | 03151 | 03165 | 03173 | 03173 | 03176 | 03202 | 03202 | 03202 | 03367 | 03367 |
|        |          | 03453 | 03773 | 03773 | 04036 | 04036 | 04045 | 04045 | 04045 | 04045 | 04045 |
| P06337 | NUMCLAS  | 02470 | 03454 | 03457 | 03460 | 04471 | 04755 | 04755 | 04755 | 05256 | 05530 |
|        |          | 05755 | 05765 | 03266 | 03266 | 03425 | 03425 | 03427 | 03427 | 05256 | 05530 |
| C00050 | NUMTARC  | 02473 | 02473 | 03444 | 03444 | 04213 | 04213 | 04751 | 04751 | 05254 | 05751 |
| P06340 | NUMTYPE  | 02470 | 03441 |       |       |       |       |       |       |       |       |
| C00051 | NUMX     |       |       |       |       |       |       |       |       |       |       |
| C00000 | NNHDS    | 02224 |       |       |       |       |       |       |       |       |       |
| C27010 | NUPNTYP  | 02416 |       |       |       |       |       |       |       |       |       |
| P06341 | NUPTPHX  | 02177 | 02246 | 02254 | 02254 | 04776 | 04777 | 05020 | 05020 |       |       |
| P00440 | NWT      | 03235 | 03236 | 03237 | 03241 | 02270 | 02273 | 02502 | 02502 |       |       |
| X00017 | ORDER    | 03062 |       |       |       |       |       |       |       |       |       |
| P06070 | P00001-U | 06073 |       |       |       |       |       |       |       |       |       |
| P06104 | P00002-U | 06110 |       |       |       |       |       |       |       |       |       |
| P06123 | P00003-U | 06126 |       |       |       |       |       |       |       |       |       |
| P06137 | P00007-U | 06143 |       |       |       |       |       |       |       |       |       |
| P06155 | P00010-U | 06160 |       |       |       |       |       |       |       |       |       |
| P06171 | P00011-U | 06175 |       |       |       |       |       |       |       |       |       |
| X00015 | PAGESKP  | 02542 | 04166 | 04166 | 04424 | 04527 | 04640 | 04735 | 05032 | 05132 | 05320 |
|        |          | 05351 | 05433 | 05510 | 05510 | 05600 | 05735 |       |       |       |       |
| C25040 | PCDEST   | 02401 | 04220 | 04221 | 04403 |       |       |       |       |       |       |
| C20510 | PCDESTCL | 02447 | 04274 | 04275 | 04275 | 04307 |       |       |       |       |       |
| P06342 | PCDESTOT | 04502 | 04503 | 04514 |       |       |       |       |       |       |       |
| C00151 | PEN      | 02704 | 03075 | 03146 | 03173 | 03204 | 04021 |       |       |       |       |
| C00121 | PKTX     |       |       |       |       |       |       |       |       |       |       |
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| C00624 | TLN      | 04024 |       |       |       |       |       |       |  |
| C00000 | TLN      |       |       |       |       |       |       |       |  |
| C00010 | TMALOC   |       |       |       |       |       |       |       |  |
| C00003 | TMULT    |       |       |       |       |       |       |       |  |
| C00207 | TOA      |       |       |       |       |       |       |       |  |
| P02363 | TS00001. | 02613 | 03207 | 03207 | 03207 | 03140 | 03203 | 04022 |  |
| P02426 | TS00002. | 03064 | 03074 | 03074 | 03165 | 03203 | 03203 | 04022 |  |
| P02424 | TS00003. |       |       |       |       |       |       |       |  |
| P02465 | TS00004. |       |       |       |       |       |       |       |  |
| P02463 | TS00005. |       |       |       |       |       |       |       |  |
| P03154 | TS00006. |       |       |       |       |       |       |       |  |
| P03425 | TS00007. |       |       |       |       |       |       |       |  |
| P03733 | TS00010. |       |       |       |       |       |       |       |  |
| P04036 | TS00011. |       |       |       |       |       |       |       |  |
| P04247 | TS00012. |       |       |       |       |       |       |       |  |
| P04471 | TS00013. |       |       |       |       |       |       |       |  |
| P04437 | TS00014. |       |       |       |       |       |       |       |  |
| P04755 | TS00015. |       |       |       |       |       |       |       |  |
| P04600 | TS00016. |       |       |       |       |       |       |       |  |
| P04623 | TS00017. |       |       |       |       |       |       |       |  |
| P04753 | TS00020. |       |       |       |       |       |       |       |  |
| P04675 | TS00021. |       |       |       |       |       |       |       |  |
| P04720 | TS00022. |       |       |       |       |       |       |       |  |
| P05003 | TS00023. |       |       |       |       |       |       |       |  |
| P04775 | TS00024. |       |       |       |       |       |       |       |  |
| P05024 | TS00025. |       |       |       |       |       |       |       |  |
| P05245 | TS00026. |       |       |       |       |       |       |       |  |
| P05074 | TS00027. |       |       |       |       |       |       |       |  |
| P05115 | TS00030. |       |       |       |       |       |       |       |  |
| P05241 | TS00031. |       |       |       |       |       |       |       |  |
| P05167 | TS00032. |       |       |       |       |       |       |       |  |
| P05210 | TS00033. |       |       |       |       |       |       |       |  |
| P05273 | TS00034. |       |       |       |       |       |       |       |  |
| P05265 | TS00035. |       |       |       |       |       |       |       |  |
| P05312 | TS00036. |       |       |       |       |       |       |       |  |
| P05345 | TS00037. |       |       |       |       |       |       |       |  |
| P05530 | TS00040. |       |       |       |       |       |       |       |  |
| P05421 | TS00041. |       |       |       |       |       |       |       |  |
| P05524 | TS00042. |       |       |       |       |       |       |       |  |
| P05476 | TS00043. |       |       |       |       |       |       |       |  |
| P05551 | TS00044. |       |       |       |       |       |       |       |  |
| P05547 | TS00045. |       |       |       |       |       |       |       |  |
| P05570 | TS00046. |       |       |       |       |       |       |       |  |
| P05755 | TS00047. |       |       |       |       |       |       |       |  |
| P05646 | TS00050. |       |       |       |       |       |       |       |  |
| P05751 | TS00051. |       |       |       |       |       |       |       |  |
| P05723 | TS00052. |       |       |       |       |       |       |       |  |
| P05776 | TS00053. |       |       |       |       |       |       |       |  |
| P05774 | TS00054. |       |       |       |       |       |       |       |  |
| P06015 | TS00055. |       |       |       |       |       |       |       |  |
| P06346 | TS11     |       |       |       |       |       |       |       |  |
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| P06112 UP00002.  | 02406 | 02452 | 02130 | 03153    | 04614 | 04622 | 04711 | 04717 | 04761 | 05002 | 85020 |
|                  | 05023 | 05106 | 05114 | 05201    | 05207 | 05251 | 05272 | 05303 | 05311 | 05412 | 85420 |
|                  | 05467 | 05475 | 05533 | 05550    | 05567 | 05567 | 05537 | 05645 | 05714 | 05722 | 85760 |
|                  | 05775 | 05806 | 06014 | 06106    | 06113 | 06114 | 06115 | 06132 | 06122 |       |       |
| P06130 UP00003.  | 02431 | 02464 | 02224 | 03230    | 03277 | 03424 | 06124 | 06131 | 06132 | 06133 | 86135 |
|                  | 06136 |       |       |          |       |       |       |       |       |       |       |
| P06145 UP00007.  | 04556 | 04754 | 04765 | 05057    | 05244 | 05255 | 05376 | 05527 | 05537 | 05623 | 85754 |
|                  | 05764 | 06141 | 06146 | 06147    | 06150 | 06154 | 06154 |       |       |       |       |
| P06162 UP00010.  | 04567 | 04664 | 05063 | 05156    | 06156 | 06163 | 06164 | 06165 | 06170 | 06170 | 86201 |
| P06177 UP00011.  | 04654 | 04750 | 05146 | 05240    | 05447 | 05523 | 05614 | 05750 | 06173 | 06200 |       |
|                  | 06202 | 06206 | 06206 |          |       |       |       |       |       |       |       |
| C00004 VALDES    | 04053 | 04101 | 04101 | 04110    | 04110 |       |       |       |       |       |       |
| C00005 VALESC    | 04052 | 04104 | 04104 | 04111    |       |       |       |       |       |       |       |
| C00012 VALFAC    | 02574 | 02574 | 03417 | 03417    |       |       |       |       |       |       |       |
| C17752 VOESCLAS  | 02435 | 04231 | 04232 | 04252    | 04253 | 04447 | 04447 |       |       |       |       |
| P06347 VDESTOT   | 02476 | 04446 | 04450 | 04473    | 04232 | 04351 | 04352 | 04451 |       |       |       |
| VDESTYPE         | 02371 | 04102 | 04103 | 04103    | 04232 | 04351 | 04352 | 04451 |       |       |       |
| C20034 VESCOTLAS | 02434 | 02435 | 04233 | 04234    | 04255 | 04256 |       |       |       |       |       |
| P06350 VESTOT    | 02476 | 04451 | 04453 | 04475    | 04233 | 04354 | 04355 |       |       |       |       |
| C22366 VESTTYPE  | 02377 | 04105 | 04106 | 04106    | 04233 | 04354 | 04355 |       |       |       |       |
| C00005 VO        | 02633 | 02633 | 02635 | 02635    | 04256 | 04261 | 04263 | 04305 | 04273 | 04305 | 86442 |
| C17670 VOGLAS    | 02436 | 04230 | 04231 | 04253    | 04256 |       |       |       |       |       |       |
|                  | 04442 |       |       |          |       |       |       |       |       |       |       |
| P06351 VOTOT     | 02477 | 04441 | 04443 | 04474    | 04476 | 04500 | 04502 | 04512 | 04220 | 04230 | 84352 |
| C21740 VOTYPE    | 02376 | 02360 | 02360 | 02370    | 02371 | 03511 | 03511 | 03512 |       |       |       |
|                  | 04355 | 04360 | 04362 | 04362    | 04401 |       |       |       |       |       |       |
| C20116 VRENCCLAS | 02445 | 04234 | 04235 | 04260    | 04261 | 04454 | 04454 |       |       |       |       |
| P06352 VRENTOT   | 02475 | 04453 | 04455 | 04477    |       |       |       |       |       |       |       |
| C23070 VRENTYPE  | 02377 | 04112 | 04112 | 04113    | 04235 | 04357 | 04360 |       |       |       |       |
| C00001 VTC       | 02623 | 02623 | 02665 | 02667    | 02667 | 03247 | 03247 | 03322 | 03322 | 03352 | 83354 |
|                  | 03416 | 03507 | 03507 | 03507    | 03757 | 04107 | 04107 | 04116 |       |       |       |
|                  |       | 02270 | 03416 | 03764    | 03764 |       |       |       |       |       |       |
| C00343 VTQC      | 02557 |       |       |          |       |       |       |       |       |       |       |
| X00016 WPNWOOIF  | 02547 | 02265 | 02270 | 05314    |       |       |       |       |       |       |       |
| P06353 WPMS      | 02416 | 05262 | 05262 | 05263    | 05266 | 05267 | 05306 | 05306 |       |       |       |
| C27017 WPTNTP    | 03136 | 03141 | 03144 | 03147    | 03163 | 03166 | 03171 | 03174 |       |       |       |
| X00022 WRARRY    | 03134 | 03161 |       |          |       |       |       |       |       |       |       |
| Z00021 WRORD     | 02362 |       |       |          |       |       |       |       |       |       |       |
| P02360 WS00001.  | 02427 | 02427 |       |          |       |       |       |       |       |       |       |

5.4TS

EVAL2

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|        |          |       |       |
|--------|----------|-------|-------|
| P04672 | WS00021. | 04674 |       |
| P04713 | WS00022. | 04721 | 04721 |
| P04763 | WS00023. | 05004 | 05004 |
| P04772 | WS00024. | 04774 |       |
| P05017 | WS00025. | 05025 | 05025 |
| P05061 | WS00026. | 05246 | 05246 |
| P05071 | WS00027. | 05073 |       |
| P05110 | WS00030. | 05116 | 05116 |
| P05150 | WS00031. | 05242 | 05242 |
| P05164 | WS00032. | 05166 |       |
| P05203 | WS00033. | 05211 | 05211 |
| P05253 | WS00034. | 05274 | 05274 |
| P05262 | WS00035. | 05264 |       |
| P05305 | WS00036. | 05313 | 05313 |
| P05340 | WS00037. | 05346 | 05346 |
| PG3400 | WS00040. | 05531 | 05531 |
| P05414 | WS00041. | 05422 | 05422 |
| P05451 | WS00042. | 05525 | 05525 |
| PG4471 | WS00043. | 05477 | 05477 |
| P05535 | WS00044. | 05552 | 05552 |
| P05544 | WS00045. | 05546 |       |
| P05563 | WS00046. | 05571 | 05571 |
| P05625 | WS00047. | 05756 | 05756 |
| P05641 | WS00050. | 05647 | 05647 |
| P05676 | WS00051. | 05752 | 05752 |
| P05716 | WS00052. | 05724 | 05724 |
| P05762 | WS00053. | 05777 | 05777 |
| P05771 | WS00054. | 05773 |       |
| P06010 | WS00055. | 06016 | 06016 |
| P00440 | WT       | 03242 | 03242 |
| C01154 | YIELD    | 02320 | 03730 |
| P00003 | YY       | 03731 | 04034 |

01177 SYMBOLS

03730

2650

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SUBROUTINE MISLPAKR(LLL)
  CSUBR   MISLPAKR 30JUNE71 *****
  CUSE    OPT      20APR71 *****
  C
  C      USER PRINT AND OPERATION OPTIONS
  C
  COMMON/OPT/JOPT(20),IT6TMAX,PREFABRY,JSKIP
  TYPE LOGICAL JOPT
  C
  CEND    OPT *****
  CUSE    1        3JUNE71 *****
  C
  C      PLAN AND TARGET INFO BLOCK DATA FROM PLANTAPE
  C
  COMMON/1/LGRP,KORD,TMLAUN,HDT(90),KPL(90),JTP(90),HLA(90),HLO(90),
  1  TZT(90),TZN(90),TMM(90),PA(90),ICMT(90),IT6TX(90),
  DIMENSION CMT(90)
  EQUIVALENCE(CMT,ICMT)
  C
  CEND    1 *****
  CUSE    22       60CT71 *****
  C
  COMMON/2/LLINK,ILINK(12000)
  DIMENSION JLINK(4000),KLINK(4000),LLINK(4000)
  EQUIVALENCE(JLINK,ILINK), (KLINK,ILINK(4001)), (LLINK,ILINK(8001))
  C
  CEND    22 *****
  C
  NMAX=450
  LINK=LINK*3
  ILINK=ILINK/3
  J=LL
  IND=IT6TX(J)
  CALL SEARCH(INDX,ITGT)
  JLINK(I)=ITGT*10000000000008*INDX*10000008*LGRP+1008
  IPEN=PA(J)*386
  TIME=TMLAUN-HDT(J)
  ITIME=TIME*10000
  ITIME=ITIME-AND.7777777778
  KLINK(I)=IPEN*10000000000008*ITIME
  IF(JOPT(3))1,4
  1 IF(LINK*GT.NMAX)2,4
  2 PRINT 3,KLINK(I),I,IT6TX(J),LGRP,KORD,TIME,PA(J)
  3 FORMAT(1X,43HMISLPAKR,KLINK,INDX,GRP,KORD,TIME,PEN,016,4IS,
  1 2FIG.4)
  4 CONTINUE
  LAT=HLA(J)*10000
  LAT=LAT*1000000008
  LAT=LAT-AND.7777777778*1000000008
  LON=HLO(J)*10000
  LON=LON-AND.7777777778
  GLAT=HLA(J) $ GLON=HLO(J)
  LLINK(I)=LAT*10000
  IF(JOPT(3))5,8
  5 IF(LINK*GT.NMAX)6,8
  6 PRINT 7,ITGT,INDX,GLAT,GLON,LLINK(I)
  7 FORMAT(1X,25HITGT INDX 6LAT 6LON LLINK 2X,2IS,2FIG.4,2X,016)

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FTNS.5

8 RETURN  
END

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5.4TS MISLPAKR

IDENT MISLPAKR

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES00270  
00035

MISLPAKR

OPT

00004

1

01741

2

27341

EXTERNAL SYMBOLS

Q1 11.00

Q3L0040

THEND.

Q800ICT.

SEARCH

STH.

GNSINGL.



5.ATS MISLPAKR

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|                 |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P00207 BEGIN.   | 00223 | 00231 | 00235 |       |       |       |       |       |       |
| C01455 CMT      | 00120 | 00122 | 00124 | 00125 | 00126 | 00130 | 00132 | 00174 | 00177 |
| P00206 CNVRT1.  | 00201 |       |       |       |       |       |       |       |       |
| P00003 CRFMT.   | 00135 | 00204 |       |       |       |       |       |       |       |
| P00001 DICT.    | 00037 | 00055 | 00114 | 00134 | 00171 | 00203 | 00212 | 00213 |       |
| P00224 ENDING.  | 00040 | 00204 | 00207 | 00210 | 00210 | 00211 | 00211 |       |       |
| P00000 EXIT.    | 00227 |       |       |       |       |       |       |       |       |
| P00003 FORMAT.  | 00221 | 00222 |       |       |       |       |       |       |       |
| P00047 FP00001. | 00214 |       |       |       |       |       |       |       |       |
| P00240 GETPL.   | 00217 | 00234 |       |       |       |       |       |       |       |
| P00230 GETPU.   | 00112 |       |       |       |       |       |       |       |       |
| P00135 GG00000. | 00167 |       |       |       |       |       |       |       |       |
| P00204 GG00001. | 00154 | 00176 |       |       |       |       |       |       |       |
| P00254 GLAT     | 00156 | 00177 |       |       |       |       |       |       |       |
| P00255 GLON     | 00074 |       |       |       |       |       |       |       |       |
| C00003 HDY      | 00136 | 00136 | 00152 | 00153 |       |       |       |       |       |
| C00421 HLA      | 00144 | 00145 | 00154 | 00155 |       |       |       |       |       |
| C00523 HLO      | 00046 | 00065 | 00116 | 00121 | 00157 | 00200 |       |       |       |
| P00256 I        |       |       |       |       |       |       |       |       |       |
| C01455 ICMT     | 00053 | 00056 | 00060 | 00175 |       |       |       |       |       |
| C00001 ILINK    | 00040 |       |       |       |       |       |       |       |       |
| P00257 INDX     | 00056 |       |       |       |       |       |       |       |       |
| P00207 INITIAL. | 00072 | 00101 |       |       |       |       |       |       |       |
| P00260 IPEN     | 00056 | 00057 | 00173 |       |       |       |       |       |       |
| P00261 ITGT     |       |       |       |       |       |       |       |       |       |
| C00001 ITGTMAX  | 00051 | 00052 | 00123 | 00124 |       |       |       |       |       |
| C01607 ITGTX    | 00077 | 00101 | 00102 |       |       |       |       |       |       |
| P00262 ITIME    | 00106 |       |       |       |       |       |       |       |       |
| C01171 IWH      | 00106 |       |       |       |       |       |       |       |       |
| P00107 .1       | 00106 | 00111 | 00111 |       |       |       |       |       |       |
| P00112 .2       | 00163 |       |       |       |       |       |       |       |       |
| P00135 .4       |       |       |       |       |       |       |       |       |       |
| P00164 .5       | 00163 | 00166 | 00166 | 00064 |       |       |       |       |       |
| P00167 .6       | 00060 | 00061 | 00062 |       |       |       |       |       |       |
| P00204 .8       | 00115 |       |       |       |       |       |       |       |       |
| P00241 .ERASER. | 00172 |       |       |       |       |       |       |       |       |
| P00003 .3       | 00050 | 00051 | 00123 | 00135 |       |       |       |       |       |
| P00020 .7       | 00065 | 00065 |       |       |       |       |       |       |       |
| P00263 J        | 00105 | 00162 |       |       |       |       |       |       |       |
| C00001 JLINK    |       |       |       |       |       |       |       |       |       |
| C00000 JOPT     |       |       |       |       |       |       |       |       |       |
| C00003 JSKIP    | 00103 | 00103 | 00117 | 00117 |       |       |       |       |       |
| C00267 JTP      | 00126 |       |       |       |       |       |       |       |       |
| C07641 KLINK    |       |       |       |       |       |       |       |       |       |
| C00001 KORD     | 00141 | 00142 | 00144 | 00156 |       |       |       |       |       |
| C00135 KPL      | 00062 | 00063 | 00125 |       |       |       |       |       |       |
| P00264 LAT      | 00042 | 00043 | 00044 | 00107 | 00167 | 00164 | 00164 |       |       |
| C00000 LGRD     | 00160 | 00160 | 00200 | 00201 |       |       |       |       |       |
| C00000 LINK     |       |       |       |       |       |       |       |       |       |
| C17501 LLINK    | 00047 |       |       |       |       |       |       |       |       |
| P00003 LLL      | 00150 | 00152 | 00157 |       |       |       |       |       |       |
| P00265 LON      |       |       |       |       |       |       |       |       |       |
| P00035 MISLPAKR | 00035 |       |       |       |       |       |       |       |       |

5.ATS MISLPAKR

P00266 NMAX  
 C01323 PA  
 P00223 PF00002.  
 C00002 PREFABRT  
 X00001 Q1010100  
 X00002 Q3000040  
 X00004 Q00DICT.  
 X00007 QMSINGL.  
 X00005 SEARCH  
 X00006 SYN.  
 X00003 YNEND.  
 P00267 TIME  
 C00002 TMLAUN  
 C01037 TZN  
 C00705 TZI  
 00104 SYMB0LS

00042 00110 00165 00131  
 00066 00067 00131 00131  
 00220  
 00071 00076 00140 00147  
 00104 00161 00036  
 00000 00205 00054  
 00113 00170  
 00133 00202  
 00075 00127  
 00073 00073

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```

SUBROUTINE PACK
  CSUBR   PACK   60CT71 *****
  CUSE    FILMANDR 15JUNE71 *****
  C
  C FILEHANDLER COMMON BLOCKS
  C
  COMMON/FILABEL/INIDENT,INRUNNO,INDATE,INFORM,INSECR,
  1  COMMON/ITP/ITP INTIME,INLNTH,INCOMH(5)
  COMMON/MYIDENT/MYIDENT
  COMMON/MYLABEL/MYFORMT,MYSECR,MVNLNTH,MYCOMH(5)
  COMMON/NOPRINT/NOPRINT
  COMMON/TWORD/ITWORD
  EQUIVALENCE (ITWORD,ITWORD)
  C
  C FILMANDR *****
  CUSE    1 3JUNE71 *****
  C
  C PLAN AND TARGET INFO BLOCK DATA FROM PLANTAPE
  C
  COMMON/1/LGRP,KORG,TMLAUN,MDT(90),KPL(90),JTP(90),MLA(90),HLO(90),
  1  TZT(90),TZN(90),JMH(90),PA(90),ICNT(90),ITGT(90)
  DIMENSION CMT(90)
  EQUIVALENCE(CMT,ICMT)
  C
  CEND    1 *****
  CUSE    22 60CT71 *****
  C
  COMMON/2/LINK,ILINK(12000)
  DIMENSION JLINK(4000),KLINK(4000),LLINK(4000)
  EQUIVALENCE(JLINK,ILINK),(KLINK,ILINK(4000)),(LLINK,ILINK(8000))
  C
  CEND    22 *****
  CUSE    PLANREC 20APR71 *****
  C
  C FIRST 25 WORDS OF A PLANTAPE RECORD
  C
  COMMON/PLANREC/JSIDE,LGROUP,LPH,JSORTIE,JUNIT,JVENTIC,LCLAS,
  1  JPHNTYPE,JREG,JALERT,JPAYLOAD,JDEPENLTOT,LPLAN,6(3),HLO(2)
  2  ,MHI(2),JHTYPE,JPTYPE,JFUNC,JLAST
  C
  CEND    PLANREC *****
  CUSE    DIMENSION T(25),NT(25)
  EQUIVALENCE (T,NT,JSIDE)
  C
  C FILES *****
  COMMON/FILES/TGTFILE(2),BASFILE(2),MSLTIME(2),ALOCSTAR(2),
  1  TMPALOC(2),ALOCGRP(2),STRKFL(2),EVENTAPE,PLANTAPE
  TYPE INTEGER TGTFILE, BASFILE, MSLTIME, ALOCSTAR, TMPALOC,
  1  ALOCGRP, STRKFL, EVENTAPE, PLANTAPE, SCRATCH
  EQUIVALENCE(SCRATCH,STRKFL)
  C
  C FILES *****
  CUSE    TOTMOD 24JUNE71 *****
  C
  C DATA FROM ALOCSTAR FILE

```



```

7 PRINT 8
8 FORMAT(//2X,32#H THERE ARE MORE THAN 5000 TARGETS)
6 ITP=ALOG(1) $ CALL TERMTAPE
CALL ORDER(JORDER,ISEQ,NHTGTS)
CALL REORDER(ISEQ,NHTGTS,1,JORDER,0.0,0.0,0.0,0.01
  REVING PLANTAPE
  LINK=0
  NPRT = 0
2003 IEXIT=0 $ IF(LINK.LT.LLIGO TO 2044
2001 LINK=LINK/3
  NFILE=NFILE+1
  JJJ=LLC(NFILE-1)
  IF(LINK.EQ.0) GO TO 2007
  CALL ORDER(JLINK,ISEQ,LINK)
  CALL REORDER(ISEQ,LINK,3,JLINK,KLINK,LLINK,0.0,0.0,0)
  IF(LINK.LT.LLL.AND.NFILE.EQ.LLIGO TO 2007
  I=1
  ITP=INW $ MYIDNT=THSCRATCH
  MYLNGTH=1000000 $ CALL SETWRITE
  IF(NFILE-1) 2042,2055
2042 ITP=IOLD $ MYIDNT=THSCRATCH
  CALL RDWORD
  DO 2040 J=1,LINK
2043 IF(1-LINK(J).LE.ITWORD) 2045,2047
2047 ITP=INW $ CALL WRWORD
  ITP=IOLD $ CALL RDWORD
  ITP=INW $ CALL WRWORD
  ITP=IOLD $ CALL RDWORD
  ITP=INW $ CALL WRWORD
  IF(1-EQ.JJJ) 2050
  ITP=IOLD $ CALL RDWORD
  I=I+1 $ GO TO 2043
2045 ISWRD=ITWORD $ ITP=INW
  ITWORD=JLINK(J) $ CALL WRWORD
  ITWORD=KLINK(J) $ CALL WRWORD
  ITWORD=LLINK(J) $ CALL WRWORD
  ITWORD=ISWRD
2049 CONTINUE
  IF(JJJ-I) 2057,2051,2051
2051 CONTINUE
  DO 2052 J=1,JJJ
  ITP=INW $ CALL WRWORD
  ITP=IOLD $ CALL RDWORD
  ITP=INW $ CALL WRWORD
  ITP=IOLD $ CALL RDWORD
  ITP=INW $ CALL WRWORD
  ITP=IOLD $ CALL RDWORD
  ITP=INW $ CALL WRWORD
  ITP=IOLD $ CALL RDWORD
2052 CONTINUE
  GO TO 2057
2050 I=J
2055 DO 2056 J=1,LINK
  ITWORD=JLINK(J) $ CALL WRWORD
  ITWORD=KLINK(J) $ CALL WRWORD
  ITWORD=LLINK(J) $ CALL WRWORD
2056 CONTINUE
2057 ITP=INW $ CALL TERMTAPE $ CALL SETREAD

```

```

ITP=IOLD
IF(INFILE.NE.1)CALL TERMTAPE
IOLD=INEN $ INEN=ITP
IF(LINK.LT.LLL)GO TO 2007
LINK=0
DO 2058 I=1,LL
2058 ILINK(I)=0
IF(IXIT.EQ.1)GO TO NEXT
2044 READ(PLANTAPE)NY
IF(JLAST.EQ.4HLAST)2081,2094
2004 LGRP=LGROU
KORD=LPEN
IF(LTOTLT.LPLAN.AND.LCLAS.NE.1)2264,2265
2264 PRINT 2266,LGRP,KORD
2266 FORMAT(5X,20HPLAN ,6F,LYOT,LGRP=,116,10H CORRIDOR=,116)
LPLAN=0
2265 CONTINUE
TMLAUNT(15)
GO TO(2010,2020,2030)LCLAS
TANKER REC. READ REST OF REC. IGNORE IT, AND RETURN TO 2003
2030 READ(PLANTAPE)(MOT(I),RPL(I),JTP(I),HLA(I),HLO(I),TZN(I),
C
GO TO 2003
C
PLANTAPE REC FOR BOMBER OR ASM
2020 READ(PLANTAPE)(MOT(I),RPL(I),JTP(I),HLA(I),HLO(I),TZN(I),
IIM(I),PA(I),CMY(I),I=1,LTOT)
JJ=0 $ K=0 $ IXIT=1 $ ASSIGN 2024 TO NEXT
DO 2054 J=1,LTOT
IF(JTP(J).EQ.0.OR.JTP(J).EQ.8)GO TO 2021
GO TO 2054
2021 JJ=JJ+1
IF(JGT.LPLAN.AND.K.EQ.0)K=JJ
READ(PLANTAPE)(TT(I),I=1,5)
2054 CONTINUE
IF(LPLAN.EQ.0)2060,2061
2060 LSTART=1
LEND=LTOT
L=0
GO TO 2064
C
THERE IS AN ALTERNATE PLAN. IS IT USED
2061 XX=RAINF(-1)
IF(XX.GT.PREFABRT)2062,2063
C
NO REFUELING ABORT. ALTERNATE PLAN NOT USED
2062 LSTART=1
L=0
LEND=PLAN $GO TO 2064
C
ALTERNATE PLAN IS USED
2063 LSTART=PLAN+1
LEND=LTOT
L=K-1
2064 DO 3451 JJ=LSTART,LEND
C
IS EVENT TYPE ASM ON TGT
IF(JTP(JJ).EQ.0)2022,2023
C
IS EVENT TYPE A BOMB IMPACT
2023 IF(JTP(JJ).EQ.8)2022,3451
2022 L=L+1
CALL BOMRPAKR(JJ,L)

```

```

100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000
121000
122000
123000
124000
125000
126000
127000
128000
129000
130000
131000
132000
133000
134000
135000
136000
137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
149000
150000
151000
152000
153000
154000
155000

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IF (LINK.0E.LL) GO TO 2001
2024 CONTINUE
C WERE EXTRA DEBUG PRINTS DESIRED
IF (JOPT(3)) 2463,3451
2463 CONTINUE
IF (NPRT.LI.20) 3450,3451
3450 PRINT 3454,JJ
3452 PRINT 3452,(CRT(LM),LM=1,LTOT)
3452 FORMAT(1X,6TIMES,12F9.2)
3453 PRINT 3453,(PA(LM),LM=1,LTOT)
3453 FORMAT(1X,6HPENPROB,12F9.2)
3454 FORMAT(1X,10HJJ EQUALS,13)
NPRT = NPRT+1
3451 CONTINUE
GO TO 2003
C PLANTAPE REC FOR MISSILE
2010 IEXIT=1 S ASSIGN 2026 TO NEXT
DO 2011 K=1,PLAN
READ(PLANTAPE)HOT(K),KPL(K),JTP(K),HLA(K),HLO(K),TZX(K),TZN(K),
11H(K),PA(K),ITGTX(K),ADUM(K),BCUM(K),CDUM(K),DDUM(K),
KORD=0
CALL MISLPAKR(K)
IF (LINK.0E.LL) GO TO 2001
2026 CONTINUE
2011 CONTINUE
GO TO 2003
2007 REWIND PLANTAPE
LINK=LINK*(NFILE-1)*LLL
SCRATCH=INEN
ITP=SCRATCH S MYIDEN=THSCRATCH S CALL SETWRITE
ITP=ALOCSTAR(1) S MYIDEN=THALOCSTAR S CALL SETREAD
NXTLNK=0
CALL RDARRAY(ADUM,45)
IF (IDUM(42).EQ.3HEOT) GO TO 95
ITGTSAV=0
80 ITMULT=ADUM(7)
ITGTINDX=IDUM(44)
IF (ITGTSAV-ITGTINDX) 85,84,85
84 *SAVE=0
GO TO 86
85 *SAVE=1
ITGTSAV=ITGTINDX
86 CONTINUE
IBGINDX=IDUM(2)
NUM=IDUM(45)
CALL RDARRAY(IG,NUM)
CALL RDARRAY(KORR,NUM)
CALL RDARRAY(RVAL,NUM)
CALL RDARRAY(PEN,NUM)
CALL RDARRAY(TOA,NUM)
CALL RDARRAY(NTT,45)
IF (NTT(42).EQ.3HEOT) IEND=1
IF (ISAVE.EQ.0) GO TO 87
82 NXTLNK=NXTLNK+1
CALL UNPACKER:NXTLNK,IOLD)
IDUM(45)=NUM

```

156000  
157000  
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212000

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```

ADUM(32)=1.
ITP=SCRATCH $ MYIDENT=THSCRATCH
CALL WRARRAY(ADUM,45)
IF(NUM.EQ.0)GO TO 90
CALL WRARRAY(IG,NUM)
CALL WRARRAY(KORR,NUM)
CALL WRARRAY(RVAL,NUM)
CALL WRARRAY(PEN,NUM)
CALL WRARRAY(TOA,NUM)
CALL WRARRAY(PLAT,NUM)
CALL WRARRAY(BLON,NUM)
90 CONTINUE
ITMULT=ITMULT-1.
IF(ITMULT.EQ.0.)GO TO 87
IAGINDX=IAGINDX+1
GO TO 82
87 CONTINUE
DO 91 I=1,45
IDUM(I)=INT(I)
91 IF(IEND.EQ.1)GO TO 95
ITP=ALOCTAR(1)
MYIDENT=THALOCTAR $ GO TO 80
95 ITP=SCRATCH $ CALL WRARRAY(ADUM,45)
CALL TERMTAPE
ITP=ALOCTAR(1) $ MYIDENT=THALOCTAR
CALL TERMTAPE
RETURN
END

```

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21400  
21500  
21600  
21700  
21800  
21900  
22000  
22100  
22200  
22300  
22400  
22500  
22600  
22700  
22800  
22900  
23000  
23100  
23200  
23300  
23400  
23500  
23600  
23700  
23800  
23900  
24000



## IDENT

## PACK

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

| PACK    | IDENT |
|---------|-------|
| FILABEL | 12046 |
| ITP     | 10506 |
| MYIDENT | 00014 |
| MYLABEL | 00001 |
| NOPRINT | 00010 |
| TWORN   | 00001 |
| 1       | 00001 |
| 2       | 01741 |
| PLANREC | 27341 |
| FILES   | 00031 |
| TGTMOO  | 00020 |
| LATLON  | 00346 |
| OPT     | 00076 |
| BINSCH  | 00004 |
|         | 14005 |

## EXTERNAL SYMBOLS

THENO.  
Q300040  
Q80010  
SETREAD  
WDARRAY  
TERMTAPE  
ORDER  
REORDER  
SETWRITE  
RDWORD  
WRWORD  
BOHRPAK  
MISLPKR  
UNPACKER  
WRARRAY  
RANF  
REN.  
TSB.  
STH.  
SLI.  
QNSINBL.

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|                 |       |       |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P07643 ADUM     | 11535 | 11611 | 11617 | 11700 | 11707 | 11770 | 11757 | 11757 | 11773 | 11773 |       |
| C00012 ALOCGRP  |       |       |       |       |       |       |       |       |       |       |       |
| C00002 ALOCIBR  | 10540 | 10540 | 10526 | 10626 | 11577 | 11577 | 11757 | 11757 | 11773 | 11773 |       |
| C00002 BASFILE  | 11537 |       |       |       |       |       |       |       |       |       |       |
| P07775 SDUM     | 12005 |       |       |       |       |       |       |       |       |       |       |
| P12004 BEGIN.   | 11734 |       |       |       |       |       |       |       |       |       |       |
| C00000 BLAT     | 11737 |       |       |       |       |       |       |       |       |       |       |
| C00036 FLOW     | 11421 |       |       |       |       |       |       |       |       |       |       |
| X00014 BOMREAR  | 11540 |       |       |       |       |       |       |       |       |       |       |
| P14127 CDUM     | 11301 | 11455 | 11455 | 11455 | 11244 | 11245 | 11246 | 11247 | 11265 | 11270 | 11271 |
| C01455 CNT      | 11250 | 11217 | 11240 | 11240 | 11243 | 11244 | 11245 | 11246 | 11247 | 11248 | 11249 |
| P12002 CNVRTL.  | 11272 | 11273 | 11274 | 11275 | 11276 | 11277 | 11278 | 11279 | 11280 | 11281 | 11282 |
|                 | 11520 | 11523 | 11524 | 11525 | 11526 | 11527 | 11528 | 11529 | 11530 | 11531 | 11532 |
|                 | 11534 | 11537 | 11540 |       |       |       |       |       |       |       |       |
| P12022 COUNT.   | 10515 | 10516 | 10525 | 10526 | 11151 | 11152 |       |       |       |       |       |
| P10422 CRFMT.   | 10626 | 11222 | 11464 | 11502 | 11502 |       |       |       |       |       |       |
| P10261 ODUM     | 11561 |       |       |       |       |       |       |       |       |       |       |
| C00245 DE       | 10510 | 10545 | 10552 | 10552 | 10565 | 10570 | 10573 | 10576 | 10622 | 10625 | 10631 |
| P00001 DICT.    | 10633 | 10637 | 10647 | 10676 | 10702 | 10726 | 10737 | 10752 | 10756 | 10762 | 10766 |
|                 | 10772 | 11015 | 11025 | 11025 | 11025 | 11043 | 11047 | 11053 | 11057 | 11063 | 11067 |
|                 | 11104 | 11111 | 11115 | 11124 | 11126 | 11134 | 11166 | 11171 | 11174 | 11221 | 11221 |
|                 | 11234 | 11259 | 11262 | 11366 | 11341 | 11351 | 11367 | 11422 | 11440 | 11445 | 11450 |
|                 | 11463 | 11466 | 11501 | 11517 | 11543 | 11547 | 11563 | 11576 | 11604 | 11610 | 11641 |
|                 | 11644 | 11647 | 11652 | 11655 | 11660 | 11674 | 11706 | 11714 | 11717 | 11722 | 11725 |
|                 | 11730 | 11733 | 11736 | 11767 | 11772 | 12000 |       |       |       |       |       |
| P12006 ENDING.  | 10511 | 12001 | 12004 |       |       |       |       |       |       |       |       |
| C00016 EVENTAPE | 12007 | 10721 | 10734 | 11175 | 11175 | 11573 | 11601 | 11612 | 11662 | 11703 | 11761 |
| P00000 EXIT.    | 10542 |       |       |       |       |       |       |       |       |       |       |
| P10422 FORMAT.  | 11775 | 10554 |       |       |       |       |       |       |       |       |       |
| C00010 FVAL     |       |       |       |       |       |       |       |       |       |       |       |
| C00016 G        | 10620 |       |       |       |       |       |       |       |       |       |       |
| P10626 G000000. | 11164 |       |       |       |       |       |       |       |       |       |       |
| P11175 G000001. | 11211 |       |       |       |       |       |       |       |       |       |       |
| P11222 G000002. | 11233 |       |       |       |       |       |       |       |       |       |       |
| P11256 G000003. | 11260 |       |       |       |       |       |       |       |       |       |       |
| P11307 G000004. | 11337 |       |       |       |       |       |       |       |       |       |       |
| P11352 G000005. | 11436 |       |       |       |       |       |       |       |       |       |       |
| P11446 G000006. | 11464 |       |       |       |       |       |       |       |       |       |       |
| P11464 G000007. | 11464 |       |       |       |       |       |       |       |       |       |       |
| P11502 G000010. | 11515 |       |       |       |       |       |       |       |       |       |       |
| P11544 G000011. | 11515 |       |       |       |       |       |       |       |       |       |       |
| C00003 H        | 11242 | 11267 | 11267 | 11522 | 11522 | 11522 |       |       |       |       |       |
| C00003 HDT      | 11246 | 11273 | 11526 |       |       |       |       |       |       |       |       |
| C00421 MIA      | 11247 | 11274 | 11527 |       |       |       |       |       |       |       |       |
| C00553 MLC      | 10513 | 10515 | 10523 | 10525 | 10533 | 10533 | 10717 | 10773 | 11002 | 11003 | 11034 |
| P12023 I        | 11036 | 11075 | 11076 | 11147 | 11152 | 11237 | 11241 | 11251 | 11264 | 11266 | 11302 |
|                 | 11343 | 11345 | 11346 | 11750 | 11750 |       |       |       |       |       |       |
|                 | 11635 | 11635 | 11744 | 11744 | 11745 |       |       |       |       |       |       |
| C00345 I001NMX  | 11612 | 11620 | 11634 | 11636 | 11677 | 11753 |       |       |       |       |       |
| C01455 ICMT     |       |       |       |       |       |       |       |       |       |       |       |
| P07643 IOUN     |       |       |       |       |       |       |       |       |       |       |       |

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|--------|-----------|-------|-------|-------|-------|-------|-------|-------|-------------------|
| P10415 | IENU      | 11665 | 11754 | 11312 | 11511 |       |       |       |                   |
| P12024 | EXIT      | 10654 | 11150 |       |       |       |       |       |                   |
| P10713 | IF00001.  |       |       |       |       |       |       |       |                   |
| P11207 | IF00002.  |       |       |       |       |       |       |       |                   |
| P11320 | IF00003.  |       |       |       |       |       |       |       |                   |
| P11332 | IF00004.  |       |       |       |       |       |       |       |                   |
| C00017 | IG        | 10563 | 11642 | 11715 |       |       |       |       |                   |
| P12025 | IGOTO.    | 11227 | 10530 | 11153 | 11154 |       |       |       |                   |
| C00001 | ILINK     |       |       |       |       |       |       |       |                   |
| C00007 | INCOMM    |       |       |       |       |       |       |       |                   |
| P07776 | IND       | 10612 |       |       |       |       |       |       |                   |
| C00002 | INDATE    |       |       |       |       |       |       |       |                   |
| C00000 | INDEXNO   |       |       |       |       |       |       |       |                   |
| C00342 | INOTYPE   |       |       |       |       |       |       |       |                   |
| P10417 | INER      | 10717 | 10747 | 10757 | 10767 | 11067 | 11040 | 11050 | 11121 11135 11140 |
|        |           | 11570 |       |       |       |       |       |       |                   |
| C00003 | INFORM    |       |       |       |       |       |       |       |                   |
| C00900 | INIDENT   |       |       |       |       |       |       |       |                   |
| P12004 | INITIAL.  | 10511 |       |       |       |       |       |       |                   |
| C00006 | INLENGTH  |       |       |       |       |       |       |       |                   |
| C00001 | INRUNNO   |       |       |       |       |       |       |       |                   |
| C00004 | INSECR    |       |       |       |       |       |       |       |                   |
| C00003 | INT       |       |       |       |       |       |       |       |                   |
| C00005 | INTIME    |       |       |       |       |       |       |       |                   |
| P10420 | IOLU      | 10732 | 10752 | 10763 | 10774 | 11044 | 11054 | 11064 | 11127 11136 11675 |
| P12026 | ISAVE     | 11627 | 11631 | 11666 |       |       |       |       |                   |
| P00003 | ISEO      | 10520 | 10634 | 10640 | 10677 | 10703 |       |       |                   |
| P12027 | ISWRD     | 11006 | 11026 |       |       |       |       |       |                   |
| P10050 | IT61      | 10601 | 10603 | 10614 |       |       |       |       |                   |
| C00344 | IT61INDEX | 11621 | 11621 | 11623 | 11623 | 11631 | 11632 |       |                   |
| C00001 | IT61MAX   |       |       |       |       |       |       |       |                   |
| P12030 | IT61SAV   | 10530 | 10600 | 10604 | 11616 | 11622 | 11633 |       |                   |
| C01607 | IT61X     | 11534 |       |       |       |       |       |       |                   |
| C00000 | ITP       | 10541 | 10541 | 10627 | 10627 | 10720 | 10720 | 10733 | 10750 10754       |
|        |           | 10754 | 10760 | 10760 | 10764 | 10770 | 10770 | 10777 | 10777 11010       |
|        |           | 11041 | 11041 | 11045 | 11045 | 11051 | 11051 | 11055 | 11061 11065       |
|        |           | 11065 | 11122 | 11122 | 11130 | 11136 | 11137 | 11152 | 11600 11600       |
|        |           | 11702 | 11702 | 11760 | 11760 | 11765 | 11765 | 11774 |                   |
|        |           | 10744 | 10744 | 11005 | 11005 | 11012 | 11012 | 11017 | 11023 11027       |
|        |           | 11027 | 11102 | 11102 | 11107 | 11107 | 11113 | 11113 |                   |
|        |           | 11277 | 11532 |       |       |       |       |       |                   |
| C01171 | IWM       |       |       |       |       |       |       |       |                   |
| P10517 | .1        |       |       |       |       |       |       |       |                   |
| P10607 | .100001   |       |       |       |       |       |       |       |                   |
| P10610 | .100002   |       |       |       |       |       |       |       |                   |
| P10660 | .100003   |       |       |       |       |       |       |       |                   |
| P10661 | .100004   |       |       |       |       |       |       |       |                   |
| P10674 | .100005   |       |       |       |       |       |       |       |                   |
| P10675 | .100006   |       |       |       |       |       |       |       |                   |
| P10715 | .100007   |       |       |       |       |       |       |       |                   |
| P10716 | .100008   |       |       |       |       |       |       |       |                   |
| P10775 | .100009   |       |       |       |       |       |       |       |                   |
| P10776 | .100010   |       |       |       |       |       |       |       |                   |
| P11133 | .100011   |       |       |       |       |       |       |       |                   |
| P11135 | .100012   |       |       |       |       |       |       |       |                   |

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| P11144 | .100013 | 11142 | 11143 |       |
| P11145 | .100014 |       |       |       |
| P11146 | .100015 |       |       |       |
| P11147 | .100016 | 11157 |       |       |
| P11148 | .100017 | 11317 |       |       |
| P11149 | .100018 | 11322 |       |       |
| P11150 | .100019 |       |       |       |
| P11151 | .100020 | 11330 | 11331 | 11333 |
| P11152 | .100021 | 11426 |       |       |
| P11153 | .100022 | 11426 |       |       |
| P11154 | .100023 | 11553 |       |       |
| P11155 | .100024 | 11553 |       |       |
| P11156 | .100025 |       |       |       |
| P11157 | .100026 | 11613 |       |       |
| P11158 | .100027 |       |       |       |
| P11159 | .100028 | 11663 |       |       |
| P11160 | .100029 |       |       |       |
| P11161 | .100030 | 11667 |       |       |
| P11162 | .100031 | 11711 |       |       |
| P11163 | .100032 |       |       |       |
| P11164 | .100033 | 11742 |       |       |
| P11165 | .100034 |       |       |       |
| P11166 | .100035 | 11755 |       |       |
| P11167 | .100036 |       |       |       |
| P11168 | .2001   | 11177 | 11427 | 11554 |
| P11169 | .2002   | 11256 | 11507 | 11560 |
| P11170 | .2003   | 11177 |       |       |
| P11171 | .2004   | 10674 | 10715 | 11144 |
| P11172 | .2005   | 11230 |       |       |
| P11173 | .2006   |       |       |       |
| P11174 | .2007   | 11231 |       |       |
| P11175 | .2008   | 11323 |       |       |
| P11176 | .2009   | 11413 |       |       |
| P11177 | .2010   | 11412 |       |       |
| P11178 | .2011   | 11312 |       |       |
| P11179 | .2012   | 11511 |       |       |
| P11180 | .2013   |       |       |       |
| P11181 | .2014   | 10730 |       |       |
| P11182 | .2015   | 11004 |       |       |
| P11183 | .2016   | 10660 |       |       |
| P11184 | .2017   | 10745 | 10746 |       |
| P11185 | .2018   | 10745 |       |       |
| P11186 | .2019   |       |       |       |
| P11187 | .2020   | 10775 |       |       |
| P11188 | .2021   | 11034 |       |       |
| P11189 | .2022   |       |       |       |
| P11190 | .2023   | 11324 |       |       |
| P11191 | .2024   | 10731 |       |       |
| P11192 | .2025   |       |       |       |
| P11193 | .2026   | 11035 | 11073 |       |
| P11194 | .2027   |       |       |       |
| P11195 | .2028   |       |       |       |
| P11196 | .2029   |       |       |       |
| P11197 | .2030   |       |       |       |
| P11198 | .2031   |       |       |       |
| P11199 | .2032   |       |       |       |
| P11200 | .2033   |       |       |       |
| P11201 | .2034   |       |       |       |
| P11202 | .2035   |       |       |       |
| P11203 | .2036   |       |       |       |
| P11204 | .2037   |       |       |       |
| P11205 | .2038   |       |       |       |
| P11206 | .2039   |       |       |       |
| P11207 | .2040   |       |       |       |
| P11208 | .2041   |       |       |       |
| P11209 | .2042   |       |       |       |
| P11210 | .2043   |       |       |       |
| P11211 | .2044   |       |       |       |
| P11212 | .2045   |       |       |       |
| P11213 | .2046   |       |       |       |
| P11214 | .2047   |       |       |       |
| P11215 | .2048   |       |       |       |
| P11216 | .2049   |       |       |       |
| P11217 | .2050   |       |       |       |
| P11218 | .2051   |       |       |       |
| P11219 | .2052   |       |       |       |
| P11220 | .2053   |       |       |       |
| P11221 | .2054   |       |       |       |
| P11222 | .2055   |       |       |       |
| P11223 | .2056   |       |       |       |
| P11224 | .2057   |       |       |       |
| P11225 | .2058   |       |       |       |
| P11226 | .2059   |       |       |       |
| P11227 | .2060   |       |       |       |
| P11228 | .2061   |       |       |       |

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 P10535 .3  
 P11436 .3450  
 P11506 .3451  
 P10551 .4  
 P10557 .5  
 P10626 .6  
 P10620 .7  
 P11617 .30  
 P11671 .82  
 P11626 .84  
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 P11634 .86  
 P11747 .87  
 P10603 .9  
 P11740 .99  
 P11752 .91  
 P11764 .95  
 P12010 .ERASER.  
 P10422 .100002  
 P10423 .100001  
 P10435 .100002  
 P10436 .100003  
 P10437 .100004  
 P10477 .100005  
 P10500 .100006  
 P10501 .100007  
 P10502 .100008  
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 P10505 .100011  
 P10440 .2266  
 P10454 .3452  
 P10462 .3453  
 P10470 .3454  
 P10424 .8  
 P12031 J  
 C00011 JALERT  
 C00013 JOEPEN  
 C00027 JFUNC  
 C00025 JMYTE  
 P12032 JJ  
 P12033 JJ  
 C00030 JLAST  
 C00001 JLINK  
 C00000 JOPT  
 C00003 JORDER  
 C00012 JPAYLOAD

11372 11372  
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 11432 11210

11416 11432  
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 10615 10667 10670

10742 11011 11030 11037 11070 11074 11077 11100 11105 11116  
 11315 11320 11327 11352

11310 11325 11326 11334 11407 11410 11414 11423 11442 11504  
 10671 10774 11071  
 11175 11175  
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| C00026 | JPTYPE   | 11245 | 11272 | 11316 | 11321 | 11321 | 11411 | 11415 | 11415 | 11525 |
| C00001 | JREAD    | 11311 | 11332 | 11335 | 11404 | 11513 | 11521 | 11550 | 11555 |       |
| C00010 | JREG     | 10705 | 11016 | 11016 | 11106 | 11106 |       |       |       |       |
| C00009 | JSIDE    | 11203 | 11203 | 11217 | 11544 | 11545 |       |       |       |       |
| C00003 | JSKIP    | 10564 | 11645 | 11720 |       |       |       |       |       |       |
| C00003 | JSORTIE  | 11244 | 11271 | 11524 |       |       |       |       |       |       |
| C00267 | JTP      | 11363 | 11375 | 11405 | 11417 | 11423 |       |       |       |       |
| C00004 | JUNIT    | 11207 | 11207 | 11226 | 11236 |       |       |       |       |       |
| C00005 | JVEHIC   | 11362 | 11377 | 11464 | 11505 |       |       |       |       |       |
| C00007 | JWPNTYPE | 11200 | 11200 |       |       |       |       |       |       |       |
| P12034 | K        | 11201 | 11201 | 11215 | 11215 |       |       |       |       |       |
| C07641 | KLINK    | 10650 | 10551 | 10554 | 10555 | 10661 | 10661 | 10664 | 10671 | 10672 |
| C00001 | KORD     | 10703 | 10710 | 10710 | 11031 | 11031 | 11117 | 11140 | 11141 | 11145 |
| C00055 | KORR     | 11424 | 11424 | 11551 | 11551 | 11566 | 11567 | 11567 |       | 11146 |
| C00135 | KPL      | 10523 | 10556 | 11150 | 11425 | 11552 |       |       |       |       |
| P12035 | L        | 10705 | 11022 | 11022 | 11112 | 11112 |       |       |       |       |
| C00006 | LCLAS    | 10670 | 10711 | 11142 | 11566 |       |       |       |       |       |
| P12036 | LEND     | 11453 | 11454 | 11457 | 11471 | 11472 | 11475 |       |       |       |
| C00001 | LGROUP   | 11202 | 11202 |       |       |       |       |       |       |       |
| C00000 | LGRP     | 11205 | 11222 | 11223 | 11327 | 11330 | 11335 | 11375 | 11376 | 11400 |
| C00000 | LINK     | 11556 |       |       |       |       |       |       |       | 11556 |
| P10413 | LL       | 11360 | 11374 | 11402 | 11406 |       |       |       |       |       |
| C17501 | LLINK    | 11204 | 11204 | 11252 | 11252 | 11303 | 11303 | 11353 | 11360 | 11361 |
| P10416 | LLL      | 11403 | 11460 | 11460 | 11476 | 11476 |       |       |       | 11402 |
| P12037 | LM       |       |       |       |       |       |       |       |       |       |
| C00002 | LREN     |       |       |       |       |       |       |       |       |       |
| C00015 | LPLAN    |       |       |       |       |       |       |       |       |       |
| P12040 | LSTART   |       |       |       |       |       |       |       |       |       |
| C00014 | LTOT     |       |       |       |       |       |       |       |       |       |
| C00022 | M        |       |       |       |       |       |       |       |       |       |
| C00023 | MHI      |       |       |       |       |       |       |       |       |       |
| X00015 | MISLPAKR | 11546 |       |       |       |       |       |       |       |       |
| C00021 | MLO      |       |       |       |       |       |       |       |       |       |
| C00004 | MSLTIME  | 10513 |       |       |       |       |       |       |       |       |
| P10414 | MKTGTS   |       |       |       |       |       |       |       |       |       |
| C00003 | MYCONH   |       |       |       |       |       |       |       |       |       |
| C00000 | MYFORMT  | 10543 | 10543 | 10722 | 10722 | 10735 | 10735 | 11574 | 11602 | 11602 |
| C00000 | MYIDENT  | 11704 | 11762 | 11762 | 11776 | 11776 |       |       |       | 11704 |
| C00002 | MYLNOTH  | 10724 |       |       |       |       |       |       |       |       |
| C00001 | MYSECR   |       |       |       |       |       |       |       |       |       |
| P12041 | NEXT     | 11160 | 11313 | 11512 |       |       |       |       |       |       |
| P10421 | NFILE    | 10665 | 10666 | 10713 | 10727 | 11131 | 11564 |       |       |       |
| C00007 | NK       |       |       |       |       |       |       |       |       |       |
| C00002 | NLOG     |       |       |       |       |       |       |       |       |       |
| C00000 | NMTGTS   | 10546 | 10547 | 10504 | 10505 | 10510 | 10610 | 10611 | 10615 | 10635 |
| C00000 | NOPRINT  |       |       |       |       |       |       |       |       | 10640 |
| C00004 | NOW      |       |       |       |       |       |       |       |       |       |
| P12042 | NPRT     | 10652 | 11433 | 11502 | 11503 |       |       |       |       |       |
| C00000 | NT       | 11172 |       |       |       |       |       |       |       |       |

| PACK             | 10553 | 10554 | 10557 | 11661 | 11662 | 11752 | 11637 | 11637 | 11642 | 11645 |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P0775 NYT        | 10553 | 10554 | 10557 | 11661 | 11662 | 11752 | 11637 | 11637 | 11642 | 11645 |
| C00341 NYT       | 10560 | 10560 | 10563 | 10566 | 10571 | 10574 | 10577 | 11637 | 11642 | 11645 |
| C00016 NYM       | 11650 | 11653 | 11656 | 11676 | 11710 | 11710 | 11715 | 11720 | 11723 | 11726 |
|                  | 11731 | 11734 | 11737 | 11737 | 11737 | 11737 | 11737 | 11737 | 11737 | 11737 |
| P12043 NYLTK     | 11666 | 11671 | 11672 | 11675 | 11675 | 11675 | 11675 | 11675 | 11675 | 11675 |
| X00007 ORDER     | 11300 | 11473 | 11473 | 11533 | 11533 | 11533 | 11533 | 11533 | 11533 | 11533 |
| C01323 PA        | 10506 | 11653 | 11726 | 11726 | 11726 | 11726 | 11726 | 11726 | 11726 | 11726 |
| P10506 PACK      | 10574 | 10645 | 11163 | 11163 | 11232 | 11232 | 11257 | 11336 | 11336 | 11514 |
| C00151 PEN       | 11514 | 11561 | 11561 | 11561 | 11561 | 11561 | 11561 | 11561 | 11561 | 11561 |
| C00017 PLANTAPE  | 11371 | 11371 | 11371 | 11371 | 11371 | 11371 | 11371 | 11371 | 11371 | 11371 |
| C00002 PREFABRT  | 11430 | 10507 | 10507 | 10507 | 10507 | 10507 | 10507 | 10507 | 10507 | 10507 |
| X00002 Q3000040  | 00000 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00003 Q800000   | 12002 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00025 QMSINGL.  | 11366 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00020 RANF      | 10551 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00005 RDARRAY   | 11454 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00012 RDWORD    | 10736 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00010 REORDER   | 10636 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00021 REN.      | 10644 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00113 RVAL      | 10571 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00014 SCRATCH   | 11571 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00004 SETREAD   | 10544 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00011 SETWRITE  | 10725 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00024 SLI.      | 11170 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00023 STM.      | 10621 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00014 ST-KFIL   | 11224 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00000 T         | 11224 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00013 TAU       | 11123 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00006 TERM-TAPE | 10630 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00000 TGTFILE   | 10630 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00074 TGTLAY    | 10630 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00075 TGTION    | 10624 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| X00001 THEMND.   | 11225 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00303 TIMEVAL   | 10624 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00002 TMLAUN    | 11225 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00010 TMPALOC   | 10624 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P10003 TMULT     | 10577 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| C00207 TOA       | 10514 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P10522 TS00001.  | 10524 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P10532 TS00002.  | 10741 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P11031 TS00004.  | 11637 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P11071 TS00005.  | 11151 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P11117 TS00006.  | 11151 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P11156 TS00007.  | 11237 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P11252 TS00010.  | 11264 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P11303 TS00011.  | 11314 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P11353 TS00012.  | 11407 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P11503 TS00014.  | 11453 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P11460 TS00015.  | 11471 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P11476 TS00016.  | 11513 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |
| P11556 TS00017.  | 11513 | 10561 | 10564 | 10567 | 10572 | 10575 | 11607 | 11640 | 11646 | 11651 |

5.4YS

PACK

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X00022 TSB.  
 P07775 TT  
 P12044 TIMULT  
 C00000 TWORS  
 C01037 TZM  
 C00705 TZT  
 X00016 UNPACKER  
 C00005 VO  
 C00001 VTO  
 C00343 VTOC  
 X00017 WHARRAY  
 X00013 WRWORD  
 P10517 WS00001.  
 P10527 WS00002.  
 P10535 WS00003.  
 P10742 WS00004.  
 P11040 WS00005.  
 P11100 WS00006.  
 P11153 WS00007.  
 P11240 WS00010.  
 P11265 WS00011.  
 P11315 WS00012.  
 P11344 WS00013.  
 P11410 WS00014.  
 P11454 WS00015.  
 P11472 WS00016.  
 P11514 WS00017.  
 P11752 WS00020.  
 P12045 XX  
 00504 SYMBOLS

1165 11234 11261 11340 11516  
 11346  
 11620 11741  
 11276 11531  
 11275 11530  
 11673  
 11705 11713 11716 11721 11724 11727 11732 11735 11766  
 10751 10761 10771 11014 11020 11024 11042 11052 11062 11103 11110  
 11114  
 10521  
 10531  
 10537  
 11032  
 11072  
 11120 11120  
 11155  
 11253  
 11304  
 11354  
 11347  
 11506  
 11461  
 11477  
 11557  
 11754  
 11370  
 11370



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SUBROUTINE SEARCH(INDEXNO,ITGT;
      SEARCH 27MAY71 *****
      BINSCH 27MAY71 *****
      C
      COMMON/BINSCH/NMTGTS,JREAD,NLOG,INT,NOW,JORDER(3144)
      C
      CEND
      BINSCH *****
      DATA(JREAD=0)
      IF(JREAD)4,1
      1 JREAD=1
      ITST=NMTGTS/2+1
      INT=2
      NLOG=1
      2 IF(INT.GE.ITST)60 TO 3
      INT=INT+2
      NLOG=NLOG+1
      30 TO 2
      3 NOW=INT
      4 INT1=INT $ NNOW=NOW
      DO 7 I=1,NLOG
      INT1=INT1/2
      INDEX=JORDER(NNOW)/10000000000B
      IF(INDEX-INDEXNO)5,10,6
      5 NNOW=NNOW+INT1
      60 TO 7
      6 NNOW=NNOW-INT1
      7 CONTINUE
      INDEX=JORDER(NNOW)/10000000000B
      IF(INDEX-INDEXNO)10,10,9
      9 NNOW=NNOW-1
      10 ITGT=ITGT+1
      ITGT=ITGT.AND.00000000007777B
      RETURN
      END
1000
26000
2000
1000
3000
4000
5000
6000
7000
8000
9700
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
22000
23000
24000
25000
26000
27000
28000
29000

```

S-ATS

SEARCH

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

SEARCH

BINSCH

EXTERNAL SYMBOLS  
Q88DNICT.

IDENY

00160

00003

14005

SEARCH

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CSUBR      SUBROUTINE SSSPCALC(SSS, NWP, J)
C          SSSPCALC 20APR71 *****
C          SSSPCALC COMPUTES TARGET SURV PROB FOR MULTIPLE WPN ATTACKS
C          SSS = SINGLE SHOT SURVIVAL PROBABILITY
C          NWP = NUMBER OF WEAPONS IN THIS CALCULATION
C          J = TARGET HARDNESS COMPONENT INDEX
C          LAW      20APR71 *****
C          CUSE     C          DAMAGE ASSESSMENT LAW - SQUARE ROOT OR EXPONENTIAL
C          C          COMMON/LAW/LAW(2)
C          CEND     C          LAW *****
C          CUSE     C          LITTLE 20APR71 *****
C          C          DATA FROM EVAL2
C          C          COMMON/LITTLE/INDCLAS,SURV,TOTRAD,TMULT,VALESC,CTMULT,
C          C          1PLANLYD,DELYD,NOMPNS,VALFAC
C          C          LITTLE *****
C          C          DIMENSION CUMKILL(2), SUMSK(2)
C          C          DATA (EPS) = .000001
C          C          IF (LAW(1) .EQ. 2MSQUARERO .AND. TOTRAD .GT. 0.0) 2, 1
C          C          POWER LAW
C          C          1 SSS = SSS ** NWP
C          C          RETURN
C          C          SQUARE ROOT LAW
C          C          2 X = 1.
C          C          10 SS = EXPF(-X) * (1. + X)
C          C          ERR = (SS - SSS) / SS
C          C          IF (ABS(ERR) - EPS) 30, 30, 20
C          C          20 X = X + (1. + X) / X * ERR
C          C          GO TO 10
C          C          30 SK = X * X
C          C          SUMSK(J) = SUMSK(J) + SK * NWP
C          C          SS = SORTF(SUMSK(J))
C          C          TCUMKILL = EXPF(-SS) * (1. + SS)
C          C          SSS = TCUMKILL / CUMKILL(J)
C          C          CUMKILL(J) = TCUMKILL
C          C          RETURN
C          C          ENTRY INITPROB
C          C          CUMKILL(1) = CUMKILL(2) = 1.0
C          C          SUMSK(1) = SUMSK(2) = 0.0
C          C          RETURN
C          C          END

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5.4TS SSSPCALC

SSSPCALC

IOENT

00171

00077

00011

00002

00013

PROGRAM LENGTH  
ENTRY POINTSINITPROB  
SSSPCALC

BLOCK NAMES

LAN  
LITTLE

EXTERNAL SYMBOLS

Q2Q07110  
Q1Q04100  
Q0Q01CT.  
SORTF  
EXPF

S-475 55SPCALC

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|                 |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P00107 BEGIN.   | 00143 | 00151 | 00155 |       |       |       |       |       |       |
| C00006 CTMULT   | 00073 | 00076 | 00104 | 00104 |       |       |       |       |       |
| P00003 CUMKILL  |       |       |       |       |       |       |       |       |       |
| C00010 DELYLD   | 00013 | 00025 | 00037 | 00064 | 00078 | 00101 | 00112 | 00113 | 00111 |
| P00001 DICT.    | 00014 | 00031 | 00076 | 00102 | 00106 | 00107 | 00110 | 00111 | 00111 |
| P00144 ENDING.  | 00046 |       |       |       |       |       |       |       |       |
| P00007 EPS      | 00044 |       |       |       |       |       |       |       |       |
| P00164 ERR      | 00147 |       |       |       |       |       |       |       |       |
| P00050 EXIT.    | 00036 |       |       |       |       |       |       |       |       |
| X00005 EXPF     | 00015 |       |       |       |       |       |       |       |       |
| P00010 FORMAT.  | 00121 |       |       |       |       |       |       |       |       |
| P00026 FP00001. | 00133 |       |       |       |       |       |       |       |       |
| P00027 FP00002. | 00123 |       |       |       |       |       |       |       |       |
| P00030 FP00003. | 00127 |       |       |       |       |       |       |       |       |
| P00042 FP00004. | 00135 |       |       |       |       |       |       |       |       |
| P00057 FP00005. | 00141 |       |       |       |       |       |       |       |       |
| P00050 FP00006. | 00125 |       |       |       |       |       |       |       |       |
| P00074 FP00007. | 00114 |       |       |       |       |       |       |       |       |
| P00160 GETPL.   | 00117 |       |       |       |       |       |       |       |       |
| P00150 GETPU.   |       |       | 00154 |       |       |       |       |       |       |
| P00020 IF00001. |       |       |       |       |       |       |       |       |       |
| C00000 INDCLAS  | 00014 | 00102 |       |       |       |       |       |       |       |
| P00107 INITIAL. | 00077 |       |       |       |       |       |       |       |       |
| P00077 INITPROB | 00053 |       |       |       |       |       |       |       |       |
| P00034 .10      | 00017 | 00022 | 00022 |       |       |       |       |       |       |
| P00024 .1       | 00023 |       |       |       |       |       |       |       |       |
| P00032 .2       |       |       |       |       |       |       |       |       |       |
| P00050 .20      |       |       |       |       |       |       |       |       |       |
| P00054 .30      | 00046 | 00047 |       |       |       |       |       |       |       |
| P00161 .ERASER. | 00035 | 00040 |       |       |       |       |       |       |       |
| P00010 .100000  | 00016 |       |       |       |       |       |       |       |       |
| P00010 J        | 00060 |       |       |       |       |       |       |       |       |
| C00000 LAW      | 00015 | 00015 |       |       |       |       |       |       |       |
| C00011 NOWPNS   |       |       |       |       |       |       |       |       |       |
| P00010 NWP      | 00027 | 00057 |       |       |       |       |       |       |       |
| P00131 PF00002. | 00120 |       |       |       |       |       |       |       |       |
| P00137 PF00003. | 00132 |       |       |       |       |       |       |       |       |
| P00143 PF00004. | 00140 |       |       |       |       |       |       |       |       |
| C00007 PLANYLD  |       |       |       |       |       |       |       |       |       |
| X00002 Q1004100 | 00056 |       |       |       |       |       |       |       |       |
| X00001 Q2007110 | 00024 |       |       |       |       |       |       |       |       |
| X00003 Q8001CT. | 00000 |       | 00100 |       |       |       |       |       |       |
| P00165 SK       | 00055 |       |       |       |       |       |       |       |       |
| X00004 SGRIF    | 00063 |       |       |       |       |       |       |       |       |
| P00166 SS       | 00042 | 00044 | 00065 | 00072 |       |       |       |       |       |
| P00010 SSS      | 00026 | 00030 | 00043 | 00074 |       |       |       |       |       |
| P00011 55SPCALC | 00011 |       |       |       |       |       |       |       |       |
| P00005 SUMSK    | 00061 | 00062 | 00105 | 00106 |       |       |       |       |       |
| C00001 SURV     |       |       |       |       |       |       |       |       |       |
| P00167 TCMKILL  | 00073 | 00075 |       |       |       |       |       |       |       |
| C00002 T6TRAD   | 00020 | 00020 |       |       |       |       |       |       |       |
| C00003 TMULT    |       |       |       |       |       |       |       |       |       |
| C00004 VALDES   |       |       |       |       |       |       |       |       |       |
| C00005 VALESC   |       |       |       |       |       |       |       |       |       |

5.475 SSSPCALC

C00012 VALFAC

P00170 X

00070 SYMBOLS

00033

00034

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SUBROUTINE TGTMODIF
  TGTMODIF 27MAY71 *****
C SUBR
C
C TGTMODIF MODIFIES TARGET PARAMETERS TAU(1),H(1),FVAL(1),VO(1)
C OR PEN. USER DATA CARDS FOR THE MODIFICATIONS MUST
C HAVE FORMAT 740 BELOW. THE FIRST CARD ENTRY IS A TARGET TYPE NAME
C (OR ALLTGT), ASSOC WITH PARAMETERS TO BE MODIFIED. THE SECOND IS
C THE TARGET PARAM TO BE CHANGED (VO, ETC.). THE THIRD IS THE FACTOR
C BY WHICH TO MULTIPLY THE PARAMETER. IF THE PEN ARRAY IS TO BE
C MODIFIED, THE NEXT FOUR WORDS CONTAIN WEAPON TYPES FOR WHICH THE
C PENETRATION IS TO BE CHANGED (POSSIBLE TYPES ARE ALLPHNS, BOMBERS,
C MISSILES, OR SPECIFIC TYPES). USE A BLANK CARD TO EXIT AFTER
C DESIRED MODIFICATIONS. USE STOP AS TARGET TYPE TO STOP RUN IN THIS
C SUBROUTINE. (THIS IS NOT NORMAL TERMINATION)
C
C CUSE FILHANDR 15JUNE71 *****
C
C FILEHANDLER COMMON BLOCKS
C
C COMMON/FILABEL/INIDENT,INRUNNO,INDATE,INFORM,INSECR,
C 1 INTIME,INLNSTH,INCOMM(5)
C
C COMMON/ITP/ITP
C
C COMMON/MYIDENT/MYIDENT
C
C COMMON/MYLABEL/MYFORMAT,MYSECR,MYLNGTH,MYCOMM(5)
C
C COMMON/NOPRINT/NOPRINT
C
C COMMON/TWORG/ITWORD
C
C EQUIVALENCE (TWORG,ITWORD)
C
C FILHANDR *****
C
C WPMHOD 20APR71 *****
C
C DATA FROM BASFILE
C
C COMMON/WPMHOD/NTYPES,CEP(80),ICLASS(80),REL(80),NAMEWPM(80),
C 1 IFUNC(80),ITYPE(200),DBL(200),NPASS
C
C WPMHOD *****
C
C TGTMOD 24JUNE71 *****
C
C DATA FROM ALOC*AR FILE
C
C COMMON/TGTMOD/INDEXNO,VTO,M,H(2),VO(2),NK,FVAL(3),TAU(3),NUM,
C 1 IIG(30),KORR(30),RVAL(30),PEN(30),TOA(30),DE(30),TIMEVAL(30),
C 2 ZNTYPE,INDTYPE,VTOC,ITGTINDX,IBGINDX
C
C TGTMOD *****
C
C FILES 10MAY71 *****
C
C COMMON/FILES/TGTFILE(2),BASFILE(2),MSLTIME(2),ALOC*AR(2),
C 1 TMAP*OC(2),ALOC*AR(2),STK*FIL(2),EVENTAPE,PLANTAPE
C 1 TYPE INTEGER TGTFILE, BASFILE, MSLTIME, ALOC*AR, TMAP*OC,
C 1 ALOC*GRP, STK*FIL, EVENTAPE, PLANTAPE, SCRATCH
C
C EQUIVALENCE (SCRATCH,STK*FIL)
C
C FILES *****
C
C DPT 20APR71 *****
C
C CUSE
C
CEND

```



```

C
C      USER PRINT AND OPERATION OPTIONS
C
COMMON/OPT/JOPT(20),ITGTMAX,PREFABRT,JSKIP
TYPE LOGICAL JCPT

C
CEND
OPT *****
DIMENSION NAMEATT(5),NTGTTYPE(50),NTGTATT(50),XTGTATT(50),
INVTYPX(50,8)
DATA((NAMEATT(1),1,1,5)=SHVO(1),6HTAU(1),6HH(1),7MPVAL(1),
13HPEN)
IF(JOPT(1))19,20
20 ITP=SCRATCH
699 CALL RDWORD
NTGT=ITWORD
710 CALL RDARRAY(TOJ,NUM)
CALL RDARRAY(IG,NUM)
CALL RDARRAY(PEN,NUM)
CALL RDARRAY(KORR,NUM)
10 IF(IITGTINDX.EQ.0)720,770
720 IND=1
730 READ 741,NTGTTYPE(IND),NTGTATT(IND),XTGTATT(IND),
1(NMPTYPX(IND,IJ),IJ=1,4)
740 FORMAT (2(A8,2X),F10.4,4(I8,2X))
741 IF (NTGTTYPE(IND).EQ.4)STOP 741,742
741 STOP
742 CONTINUE
742 IF(NTGTTYPE(IND).EQ.1H)760,735
755 IND=IND+1
GO TO 730
760 NUMMODS = IND-1
761 IF(NUMMODS.EQ.0)761,763
761 PRINT 762,NPASS
762 FORMAT(//4SHNO TARGET MODIFICATIONS ON THIS PASS,NPASS IS,2X,I10)
GO TO 770
763 PRINT 764,NPASS
764 FORMAT (5X,5NPASS,5X,I10,//4X,35HTARGET MODIFICATIONS ON THIS
1PASS//2X,7NTGTTYPE,1X,9HTATTRIBUTE,2X,9HCHANGED BY,2X,34X,3EAPON TYPE
2S FOR WHICH PENETRATION/2X,7HCHANGED,2X,7HCHANGED,3X,9HFACTOR OF
3,2X,33HPROBABILITY WAS CHANGED BY FACTOR)
PRINT 765, (NTGTTYPE(IC),NTGTATT(IC),XTGTATT(IC),NMPTYPX(IC,IJ),
1IJ=1,4),IC=1,NUMMODS)
765 FORMAT(2(2X,A8),F10.4,4(2X,A8))
IF NUMMODS =0,THIS DO LOOP PROVIDES FAST EXIT
770 DO 850 IC=1,NUMMODS
IF(NTGTTYPE(IC).EQ.7)ALLTGT(790,780
780 IF(NTGTTYPE(IC).EQ.7)ALLTGT(790,780
790 INDEXATT = IITLE(NTGTATT(IC),NAMEATT(5)) + 1
GO TO (791,792,793,794,795,796)INDEXATT
791 IF(IITGTINDX.EQ.0)781,820
761 PRINT 800
800 FORMAT(2X,52HERROR,TARGET ATTRIBUTE TO BE CHANGED IS NOT ON LIST
1/1X,9HTATTRIBUTE,5X,28HLIST OF ALLOWABLE ATTRIBUTES)
PRINT 801,NTGTATT(IC)
801 FORMAT(2X,A8,6X,SHVO(1),6X,6HTAU(1),6X,6HH(1),6X,7MPVAL(1),6X,
13HPEN)

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FTMS.5

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GO TO 850
792 IF(M.EQ.1)728,789
788 VO(1) = VTO = VTO * XTGTATT
GO TO 856
789 VO(1)=VO(1)*XTGTATT
VO(2)=VTO =VO(1)
IF(VO(2).802.802.804
802 VO(1)=VTO
VO(2) =0.
804 GO TO 850
793 TAU(1) = TAU(1)*XTGTATT(IC)
GO TO 850
794 M(1)=M(1)*XTGTATT(IC)
GO TO 850
795 GO TO 1805.866.815JK
805 FVAL(1)=1.0
GO TO 850
806 FVAL(1)=FVAL(1)*XTGTATT(IC)
IF(FVAL(1).GT.1.0)807,808
807 FVAL(1)=1.0
FVAL(2)=0.
GO TO 850
808 FVAL(2)= 1.0 -FVAL(1)
GO TO 850
810 FVAL(1)=FVAL(1)*XTGTATT(IC)
IF(FVAL(1).GT.1.0)811,812
811 FVAL(1)= 1.0
FVAL(2)=FVAL(3)=0
GO TO 850
812 RAT =FVAL(2)/(FVAL(2)+FVAL(3))
FVAL(2)= RAT*(1.0-FVAL(1))
FVAL(3)= 1.0 -FVAL(1)-FVAL(2)
GO TO 850
796 IF(NHPTYPX(IC,1).EQ.7)HALLWMS)815,820
815 DO 816 IVP =1,NUM
PEN(IMP)=PEN(IMP)*XTGTATT(IC)
IF(PEN(IMP).GT.1.0)817,818
817 PEN(IMP) =1.0
816 CONTINUE
GO TO 850
820 IF(NHPTYPX(IC,1).EQ.7)HOMBERS)825,830
825 DO 829 IVP =1,NUM
J6 =16(IMP)
IF(ICLASS(I)TYPE(J6)).EQ.2)826,829
PEN(IMP)=PEN(IMP)*XTGTATT(IC)
IF(PEN(IMP).GT.1.0)827,829
827 PEN(IMP) =1.0
829 CONTINUE
GO TO 850
830 IF(NHPTYPX(IC,1).EQ.8)HMISSILES)831,836
831 DO 835 IVP =1,NUM
J6 = 16(IMP)
IF(ICLASS(I)TYPE(J6)).EQ.1)833,835
PEN(IMP)=PEN(IMP)*XTGTATT(IC)
IF(PEN(IMP).GT.1.0)834,835
834 PEN(IMP) =1.0

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835 CONTINUE
80 TO 850
836 DO 847 I=1,4
      IF(NUPTYPX(IC,IJ).EQ.1H) 250,837
837 DO 846 IMP=1,NUM
      JB=IG(I,IMP)
      IF(NAMEPKN(I,TYPE(JB)).EQ.NUPTYPX(IC,IJ)) 840,846
840 PEN(IMP)=PEN(IMP)+ITGTATT(IC)
841 PEN(IMP)=1.0/841,846
846 CONTINUE
847 CONTINUE
850 CONTINUE
      IYETINDX = ITGTINDX +1
      END
125000
126000
127000
128000
129000
130000
131000
132000
133000
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139000

```

5.4TS TGTMODIF

IDENT TGTMODIF

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

02064  
01264  
TGTMODIF  
FILABEL 00014  
ITP 00001  
MYIDENT 00001  
MYLABEL 00010  
NOPRINT 00001  
TWCOD 00001  
WPNMOD 01442  
TGTMOD 00346  
FILES 00020  
OPT 00004

EXTERNAL SYMBOLS

03000040  
THEND.  
000STOPS  
000DICT.  
RDWORD  
RDARRAY  
TITLE  
TSH.  
STH.  
ONSINGL.

## S-ATS YSTMODIF

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|                 |  |  |  |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|--|--|--|
| C00012 ALOCGRP  |  |  |  |  |  |  |  |  |  |
| C00006 ALOCTAR  |  |  |  |  |  |  |  |  |  |
| C00002 BASEFILE |  |  |  |  |  |  |  |  |  |
| P02034 BEGIN.   |  |  |  |  |  |  |  |  |  |
| C00001 CEP      |  |  |  |  |  |  |  |  |  |
| P01772 CNVRT1.  |  |  |  |  |  |  |  |  |  |
| P02051 COUNT.   |  |  |  |  |  |  |  |  |  |
| P01056 CRFMT.   |  |  |  |  |  |  |  |  |  |
| C01131 DBL      |  |  |  |  |  |  |  |  |  |
| C00245 DE       |  |  |  |  |  |  |  |  |  |
| P00001 DICT.    |  |  |  |  |  |  |  |  |  |
| P02060 ENDING.  |  |  |  |  |  |  |  |  |  |
| C00016 EVENTAPE |  |  |  |  |  |  |  |  |  |
| P00000 EXIT.    |  |  |  |  |  |  |  |  |  |
| P01056 FORMAT.  |  |  |  |  |  |  |  |  |  |
| C00501 FUNC     |  |  |  |  |  |  |  |  |  |
| C00010 FVAL     |  |  |  |  |  |  |  |  |  |
| P01344 G600000. |  |  |  |  |  |  |  |  |  |
| P01374 G600001. |  |  |  |  |  |  |  |  |  |
| P01405 G600002. |  |  |  |  |  |  |  |  |  |
| P01436 G600003. |  |  |  |  |  |  |  |  |  |
| P01475 G600004. |  |  |  |  |  |  |  |  |  |
| P01505 G600005. |  |  |  |  |  |  |  |  |  |
| C00003 H        |  |  |  |  |  |  |  |  |  |
| C00345 I8GINOX  |  |  |  |  |  |  |  |  |  |
| P02052 IC       |  |  |  |  |  |  |  |  |  |
| C00121 ICLASS   |  |  |  |  |  |  |  |  |  |
| C00017 IG       |  |  |  |  |  |  |  |  |  |
| P02053 IGOTO.   |  |  |  |  |  |  |  |  |  |
| P02054 IJ       |  |  |  |  |  |  |  |  |  |
| P02055 IMD      |  |  |  |  |  |  |  |  |  |
| P01773 IN00002. |  |  |  |  |  |  |  |  |  |
| P01774 IN00004. |  |  |  |  |  |  |  |  |  |
| C00007 INCOMM   |  |  |  |  |  |  |  |  |  |
| C00002 INDATE   |  |  |  |  |  |  |  |  |  |
| P02056 INDEXATT |  |  |  |  |  |  |  |  |  |
| C00000 INDEXNO  |  |  |  |  |  |  |  |  |  |
| C00342 INDTYPE  |  |  |  |  |  |  |  |  |  |
| C00003 INFORM   |  |  |  |  |  |  |  |  |  |
| C00000 INIDENT  |  |  |  |  |  |  |  |  |  |
| P02051 INITIAL. |  |  |  |  |  |  |  |  |  |
| C00000 INLNTH   |  |  |  |  |  |  |  |  |  |
| C00001 INRUNNO  |  |  |  |  |  |  |  |  |  |
| C00004 INSECR   |  |  |  |  |  |  |  |  |  |
| C00005 INTIME   |  |  |  |  |  |  |  |  |  |
| C00344 ITGTINDX |  |  |  |  |  |  |  |  |  |
| C00001 ITGTMAX  |  |  |  |  |  |  |  |  |  |
| X00007 ITLE     |  |  |  |  |  |  |  |  |  |
| C00000 ITP      |  |  |  |  |  |  |  |  |  |

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7

CO0000 ITW0RD  
 CO0621 ITYPE  
 PO3357 IMP  
 PO1215 .10  
 PO1273 .20  
 PO1275 .689  
 PO1301 .710  
 PO1317 .720  
 PO1322 .730  
 PO1347 .741  
 PO1352 .742  
 PO1355 .755  
 PO1361 .760  
 PO1364 .761  
 PO1375 .76-  
 PO1436 .770  
 PO1445 .780  
 PO1467 .781  
 PO1510 .788  
 PO1514 .789  
 PO1450 .790  
 PO1465 .791  
 PO1506 .792  
 PO1526 .793  
 PO1532 .794  
 PO1536 .795  
 PO1610 .796  
 PO1522 .802  
 PO1525 .804  
 PO1542 .805  
 PO1545 .806  
 PO1553 .807  
 PO1557 .808  
 PO1562 .810  
 PO1570 .811  
 PO1574 .812  
 PO1613 .815  
 PO1627 .817  
 PO1633 .820  
 PO1636 .825  
 PO1654 .826  
 PO1662 .827  
 PO1664 .829  
 PO1666 .830  
 PO1671 .831  
 PO1707 .833  
 PO1715 .834  
 PO1717 .835  
 PO1721 .836  
 PO1727 .837  
 PO1746 .840  
 PO1754 .841  
 PO1756 .846

01277 01277 01701 01702 01740 01741 01730 01733  
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## SATS TOTMODIF

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|                  |       |       |       |       |       |       |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P01757 .847      | 01447 | 01466 | 01505 | 01513 | 01525 | 01531 | 01535 | 01544 | 01556 | 01561 | 01573 |
| P01762 .850      | 01607 | 01632 | 01665 | 01720 | 01726 |       |       |       |       |       |       |
|                  | 01456 | 01576 | 01600 |       |       |       |       |       |       |       |       |
| P02045 .ERASER.  |       |       |       |       |       |       |       |       |       |       |       |
| P01071 ..100000  | 01345 |       |       |       |       |       |       |       |       |       |       |
| P01072 ..100001  | 01353 |       |       |       |       |       |       |       |       |       |       |
| P01206 ..100002  | 01443 |       |       |       |       |       |       |       |       |       |       |
| P01260 ..100003  | 01611 |       |       |       |       |       |       |       |       |       |       |
| P01261 ..100004  | 01634 |       |       |       |       |       |       |       |       |       |       |
| P01262 ..100005  | 01667 |       |       |       |       |       |       |       |       |       |       |
| P01263 ..100006  | 01725 |       |       |       |       |       |       |       |       |       |       |
| P01056 ..740     | 01325 |       |       |       |       |       |       |       |       |       |       |
| P01073 ..762     | 01367 |       |       |       |       |       |       |       |       |       |       |
| P01107 ..764     | 01400 |       |       |       |       |       |       |       |       |       |       |
| P01173 ..765     | 01410 |       |       |       |       |       |       |       |       |       |       |
| P01207 ..800     | 01472 |       |       |       |       |       |       |       |       |       |       |
| P01235 ..801     | 01500 |       |       |       |       |       |       |       |       |       |       |
| P02044 .NSTIFF.  | 01650 |       |       |       |       |       |       |       |       |       |       |
| P01454 .Z00001.  | 01451 |       |       |       |       |       |       |       |       |       |       |
| P02060 JG        | 01645 |       |       |       |       |       |       |       |       |       |       |
| C00000 JOPT      | 01271 |       |       |       |       |       |       |       |       |       |       |
| C00003 JSKIP     |       |       |       |       |       |       |       |       |       |       |       |
| C00005 KORR      | 01314 |       |       |       |       |       |       |       |       |       |       |
| C00002 M         | 01506 |       |       |       |       |       |       |       |       |       |       |
| C00004 MSLTIME   |       |       |       |       |       |       |       |       |       |       |       |
| C00003 MYCOMH    |       |       |       |       |       |       |       |       |       |       |       |
| C00000 MYFORINT  |       |       |       |       |       |       |       |       |       |       |       |
| C00000 MYIDENT   |       |       |       |       |       |       |       |       |       |       |       |
| C00002 MYLNGTH   |       |       |       |       |       |       |       |       |       |       |       |
| C00001 MYSECR    |       |       |       |       |       |       |       |       |       |       |       |
| P00003 NAMEATT   | 01056 | 01454 |       |       |       |       |       |       |       |       |       |
| C00361 NAMEWPN   | 01743 | 01744 |       |       |       |       |       |       |       |       |       |
| C00007 NK        | 01536 | 01536 |       |       |       |       |       |       |       |       |       |
| C00000 MOPRINT   |       |       |       |       |       |       |       |       |       |       |       |
| C01441 NPASS     | 01370 | 01376 | 01401 | 01461 |       |       |       |       |       |       |       |
| P02061 NTGT      | 01306 |       |       |       |       |       |       |       |       |       |       |
| P00072 NTGTATT   | 01331 | 01417 | 01451 | 01454 | 01502 |       |       |       |       |       |       |
| P00010 NTGTTYPE  | 01330 | 01345 | 01353 | 01416 | 01443 | 01447 |       |       |       |       |       |
| C00341 NTTYPE    | 01445 | 01445 |       |       |       |       |       |       |       |       |       |
| C00000 NTYPES    |       |       |       |       |       |       |       |       |       |       |       |
| C00016 NUM       | 01303 | 01306 | 01311 | 01314 | 01614 | 01615 | 01637 | 01640 | 01672 | 01673 | 01738 |
| P02062 NUMKODS   | 01731 |       |       |       |       |       |       |       |       |       |       |
| P00236 NWPTYPX   | 01362 | 01432 | 01764 |       |       |       |       |       |       |       |       |
| P01775 P00000.U  | 01337 | 01424 | 01611 | 01634 | 01667 | 01725 | 01745 |       |       |       |       |
| P02013 P00001.U  | 02001 |       |       |       |       |       |       |       |       |       |       |
| C00151 PEN       | 02015 |       |       |       |       |       |       |       |       |       |       |
|                  | 01211 | 01621 | 01621 | 01623 | 01623 | 01624 | 01630 | 01630 | 01654 | 01654 | 01656 |
|                  | 01656 | 01657 | 01663 | 01663 | 01707 | 01707 | 01711 | 01711 | 01712 | 01716 | 01716 |
|                  | 01746 | 01746 | 01750 | 01750 | 01751 | 01755 | 01755 |       |       |       |       |
| C00017 PLANTAPE  |       |       |       |       |       |       |       |       |       |       |       |
| C00002 PREFABRY  |       |       |       |       |       |       |       |       |       |       |       |
| X00001 Q3000040  | 01270 |       |       |       |       |       |       |       |       |       |       |
| X00004 Q8001CT.  | 00000 | 01265 |       |       |       |       |       |       |       |       |       |
| X00003 Q800STOPS | 01350 |       |       |       |       |       |       |       |       |       |       |





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999 IF(LINK.LT.LLL)GO TO 10
1000 IF(LINK.LE.MAXLNK)10,1006
1006 LNKST=NFIL+LLL
      ITP=IUNIT $ MYIDENT=7HSCATCH
      IF(MAXLNK.GT.0.AND.MAXLNK.LT.LLL)GO TO 102
      MAXLNK=LLL
      IF(LNKST.GT.LINK)MAXLNK=LINK-(NFIL-E-I)*MAXLNK
      IF(MAXLNK.EQ.0)GO TO 102
DO 1004 I=1,MAXLNK
  CALL RDWORD $ JLINK(I)=ITWORD
  CALL RDWORD $ KLINK(I)=ITWORD
  CALL RDWORD $ LLINK(I)=ITWORD
1004 CONTINUE
      LNK=1 $ MFILE=NFIL+1
10 CONTINUE
      IF(LNK.GT.LINK)GO TO 102
      INDEXNO=JLINK(LNK).AND.000077777000008
      INDEXNO=INDEXNO/1000008
      ITGTX=JLINK(LNK)/100000000008
      IF(ITGTX-ITGTINDEX)103,2,102
2 CONTINUE
      IF(INDEXNO-IBINDEX)103,4,102
4 MFPN=MFPN+1
      IF(MFPN-30)6,6,11
6 KG=JLINK(LNK).AND.0000000000777008
      IG(MFPN)=KG/1008
      IP=IP/1000000000008
      PEN(MFPN)=IP/4096.
      JG=IG(MFPN)
      PEN(MFPN)=PEN(MFPN)/(06L(JG)*REL(ITYPE(JG)))
      KG=JLINK(LNK).AND.00000000000000778
      KORR(MFPN)=KG
      IT=JLINK(LNK).AND.7777777777
      TOA(MFPN)=IT/10000.
      ITL=JLINK(LNK).AND.77777777700000008
      ITL=ITL/1000000008
      BLAT(MFPN)=ITL/10000.
      ITL=JLINK(LNK).AND.777777778
      BLON(MFPN)=ITL/10000.
9 IF(JOPT(3))5,8
5 IF(LNK.LT.NMAX)GO TO 8
  PRINT 7,ITGTX,INDEXNO,MFPN,IG(MFPN)*KORR(MFPN)*PEN(MFPN).
  ITOA(MFPN),BLAT(MFPN),BLON(MFPN)
7 FORMAT(IX,45HTGTNO INDEXNO MFPNO IG KORR PEN TOA BLAT BLON ,5IG,
1 4F10.4)
8 LNK=LNK+1
  GO TO 999
11 NT=MFPN-1
  THERE=0
DO 15 I=1,NT
  IF(IG(I))15,15,12
12 ITEST=IG(I)
  IG(I)=0
  IF(IHERE)=ITEST
  IF(IHERE)=ITEST

```

```

KORR(IHERE)=XMINOF(-1,KORR(I))
F=-KORR(IHERE)
TOASUM=TOA(I)*F
BLATSUM=BLAT(I)*F
BLONSUM=BLON(I)*F
PEN(IHERE)=PEN(I)
IX=I+1
DO 14 J=IX,NT
IF(I8(J)-IYES)14,13,14
13 I6(J)=0
KORR(IHERE)=KORR(IHERE)-1
TOASUM=TOASUM+TOA(J)
BLATSUM=BLATSUM+BLAT(J)
BLONSUM=BLONSUM+BLON(J)
14 CONTINUE
F=-1./KORR(IHERE)
TOA(IHERE)=TOASUM*F
BLAT(IHERE)=BLATSUM*F
BLON(IHERE)=BLONSUM*F
15 CONTINUE
IHERE=IHERE+1
DO 16 I=IHERE,NT
I8(I)=KORR(I)=0
16 TOA(I)=BLAT(I)=BLON(I)=PEN(I)=0.
IF(MNP(IHERE))17,17,19
17 PRINT 18,INDEXNO
18 FORMAT(//I,IS(IH),61H UNPACKER UNABLE TO REDUCE NUMBER OF WEAPD
IN GROUPS ON TARGET ,I6,SH - ABORT)
CALL ABORT
19 MNP=IHERE
GO TO 6
102 MNP=MNP
LNK=LNK+1
RETURN
103 PRINT 104,IUNIT,ITGTX,INDEXNO,ITGTINX,I8GINOX
104 FORMAT(21HOPACKED SCRATCH FILE I6,42H OUT OF SYNCH WITH ALOCTAR FI
LE ON TARGET I6,16H HAVING INDEXNO I7,20H ALOCTAR TARGET IS I6,
2 I7H AND HAS INDEXNO I7)
CALL ABORT
RETURN
END

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5.4TS UNPACKER

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IDENT UNPACKER

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

|          |       |
|----------|-------|
| UNPACKER | 00713 |
|          | 00105 |
| OPT      | 00004 |
| FILABEL  | 00014 |
| ITP      | 00001 |
| MYIDENT  | 00001 |
| MYLABEL  | 00010 |
| NORPRINT | 00001 |
| TWORD    | 00001 |
| WPNMOD   | 01442 |
| TGTMOD   | 00346 |
| LATLOW   | 00076 |
|          | 27341 |

EXTERNAL SYMBOLS

|          |
|----------|
| Q3000046 |
| THEMD.   |
| Q1005100 |
| Q800100  |
| RDWORD   |
| ABORT    |
| XMINOF   |
| STM.     |
| QMSINGL. |

5.4TS UNPACKER

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|                 |       |       |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| X00006 ABORT    | 00526 | 00555 | 00640 | 00354 | 00422 | 00422 | 00451 | 00452 | 00467 | 00467 | 00510 |
| P00562 BEGIN.   | 00626 | 00634 | 00354 | 00466 | 00425 | 00454 | 00454 | 00471 | 00472 | 00507 | 00510 |
| C00000 BLAT     | 00314 | 00315 | 00451 | 00356 | 00470 |       |       |       |       |       |       |
| P00066 BLATSUM  | 00424 | 00451 | 00453 | 00455 |       |       |       |       |       |       |       |
| C00036 BLON     | 00324 | 00325 | 00356 | 00470 |       |       |       |       |       |       |       |
| P00667 BLONSUM  | 00426 | 00453 | 00455 | 00470 |       |       |       |       |       |       |       |
| C00001 CEP      | 00342 | 00344 | 00346 | 00350 | 00351 | 00352 | 00353 | 00355 | 00356 | 00523 | 00544 |
| P00561 CNVRT1.  | 00546 | 00550 | 00551 | 00552 |       |       |       |       |       |       |       |
| P00070 COUNT.   | 00435 | 00436 | 00502 | 00503 |       |       |       |       |       |       |       |
| P00006 CRAFT.   | 00361 | 00526 | 00555 |       |       |       |       |       |       |       |       |
| C01131 DBL      | 00261 | 00261 |       |       |       |       |       |       |       |       |       |
| C00245 DE       |       |       |       |       |       |       |       |       |       |       |       |
| P00001 DICT.    | 00107 | 00160 | 00165 | 00171 | 00337 | 00360 | 00410 | 00520 | 00525 | 00527 | 00541 |
| P00627 ENDING.  | 00554 | 00556 | 00565 | 00566 |       |       |       |       |       |       |       |
| P00000 EXIT.    | 00110 | 00536 | 00557 | 00562 | 00563 | 00563 | 00564 | 00564 |       |       |       |
| P00571 F        | 00632 |       |       |       |       |       |       |       |       |       |       |
| P00066 FORMAT.  | 00417 | 00421 | 00423 | 00426 | 00463 | 00464 | 00466 | 00471 |       |       |       |
| P00120 FP00001. | 00130 |       |       |       |       |       |       |       |       |       |       |
| P00126 FP00002. | 00574 | 00575 |       |       |       |       |       |       |       |       |       |
| P00177 FP00003. | 00622 | 00623 |       |       |       |       |       |       |       |       |       |
| P00203 FP00004. | 00612 | 00613 |       |       |       |       |       |       |       |       |       |
| P00207 FP00005. | 00600 | 00601 |       |       |       |       |       |       |       |       |       |
| P00234 FP00006. | 00602 | 00603 |       |       |       |       |       |       |       |       |       |
| P00331 FP00007. | 00604 | 00605 |       |       |       |       |       |       |       |       |       |
| P00361 FP00010. | 00606 | 00607 |       |       |       |       |       |       |       |       |       |
| P00362 FP00011. | 00610 | 00611 |       |       |       |       |       |       |       |       |       |
| P00534 FP00012. | 00614 | 00615 |       |       |       |       |       |       |       |       |       |
| P00535 FP00013. | 00576 | 00577 |       |       |       |       |       |       |       |       |       |
| C00543 FP00014. | 00616 | 00617 |       |       |       |       |       |       |       |       |       |
| C00501 FUNC     | 00624 | 00625 |       |       |       |       |       |       |       |       |       |
| C00010 FVAL     |       |       |       |       |       |       |       |       |       |       |       |
| P00643 GETPL.   | 00567 | 00620 |       |       |       |       |       |       |       |       |       |
| P00633 GETPU.   | 00572 | 00637 |       |       |       |       |       |       |       |       |       |
| P00361 G000000. | 00335 |       |       |       |       |       |       |       |       |       |       |
| P00526 G000001. | 00516 |       |       |       |       |       |       |       |       |       |       |
| P00555 G000002. | 00537 |       |       |       |       |       |       |       |       |       |       |
| C00003 H        |       |       |       |       |       |       |       |       |       |       |       |
| P00672 I        | 00156 | 00162 | 00174 | 00367 | 00371 | 00376 | 00431 | 00473 | 00500 | 00502 |       |
| C00345 I00INDEX | 00226 | 00552 |       |       |       |       |       |       |       |       |       |
| C00121 ICLASS   |       |       |       |       |       |       |       |       |       |       |       |
| C00017 I0       | 00242 | 00242 | 00254 | 00347 | 00350 | 00372 | 00372 | 00376 | 00377 | 00401 | 00401 |
| P00673 IHERE    | 00403 | 00404 | 00437 | 00437 | 00443 | 00444 | 00444 | 00477 | 00477 | 00501 | 00514 |
| C00001 ILINK    | 00366 | 00374 | 00375 | 00403 | 00436 | 00440 | 00476 |       |       |       |       |
| C00007 INCOMM   |       |       |       |       |       |       |       |       |       |       |       |
| C00002 INDATE   |       |       |       |       |       |       |       |       |       |       |       |
| C00000 INDEXNO  | 00212 | 00213 | 00215 | 00216 | 00225 | 00225 | 00343 | 00343 | 00522 | 00522 | 00547 |
| C00342 INDTYPE  | 00547 |       |       |       |       |       |       |       |       |       |       |
| C00003 INFORM   |       |       |       |       |       |       |       |       |       |       |       |

5.4TS UNPACKER

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ED 0

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|        |          |       |       |       |       |       |
|--------|----------|-------|-------|-------|-------|-------|
| C00000 | INIDENT  |       |       |       |       |       |
| P00562 | INITIAL. | 00110 |       |       |       |       |
| C00006 | INLNQTH  |       |       |       |       |       |
| C00001 | INRUNNO  |       |       |       |       |       |
| C00004 | INSECR   |       |       |       |       |       |
| C00005 | INTIME   |       |       |       |       |       |
| P00674 | IP       | 00245 | 00247 | 00250 |       |       |
| P00675 | IT       | 00276 | 00277 |       |       |       |
| P00676 | ITEST    | 00400 | 00402 | 00440 |       |       |
| C00344 | ITGTINQX | 00222 | 00222 | 00551 |       |       |
| C00001 | ITGTMAX  |       |       |       |       |       |
| P00677 | ITGTX    | 00221 | 00341 | 00545 |       |       |
| C00700 | ITL      | 00306 | 00310 | 00310 | 00320 | 00320 |
| C00000 | ITP      | 00127 | 00127 |       |       |       |
| C00000 | ITWORD   | 00161 | 00161 | 00166 | 00172 | 00172 |
| C00621 | ITYPE    | 00256 | 00257 |       |       |       |
| P00006 | IUNIT    | 00126 | 00543 |       |       |       |
| P00701 | IX       | 00432 | 00432 | 00434 |       |       |
| P00120 | .1000    |       |       |       |       |       |
| P00203 | .10      | 00117 | 00122 | 00123 |       |       |
| P00117 | .100001  |       |       |       |       |       |
| P00120 | .100002  | 00116 | 00116 |       |       |       |
| P00140 | .100003  |       |       |       |       |       |
| P00141 | .100004  | 00133 | 00134 | 00136 | 00137 |       |
| P00145 | .100005  |       |       |       |       |       |
| P00152 | .100006  | 00144 | 00144 |       |       |       |
| P00154 | .100007  |       |       |       |       |       |
| P00155 | .100008  | 00153 |       |       |       |       |
| P00206 | .100009  |       |       |       |       |       |
| P00207 | .100010  | 00205 | 00205 |       |       |       |
| P00334 | .100011  |       |       |       |       |       |
| P00335 | .100012  | 00333 | 00333 |       |       |       |
| P00174 | .1004    |       |       |       |       |       |
| P00124 | .1006    | 00122 |       |       |       |       |
| P00532 | .102     | 00140 | 00154 | 00206 | 00224 | 00227 |
| P00537 | .103     | 00223 | 00227 |       |       |       |
| P00364 | .11      | 00233 |       |       |       |       |
| P00374 | .12      |       |       |       |       |       |
| P00443 | .13      | 00441 |       |       |       |       |
| P00456 | .14      | 00441 | 00442 |       |       |       |
| P00473 | .15      | 00373 | 00373 |       |       |       |
| P00506 | .16      |       |       |       |       |       |
| P00516 | .17      | 00514 | 00515 |       |       |       |
| P00530 | .19      | 00515 |       |       |       |       |
| P00225 | .2       | 00223 |       |       |       |       |
| P00230 | .4       | 00226 |       |       |       |       |
| P00331 | .5       | 00330 |       |       |       |       |
| P00234 | .6       | 00232 | 00233 | 00531 |       |       |
| P00361 | .8       | 00330 | 00334 |       |       |       |
| P00326 | .9       |       |       |       |       |       |
| P00114 | .99      | 00363 |       |       |       |       |
| P00645 | .ERASER. | 00146 | 00147 | 00264 | 00266 | 00405 |
| P00006 | .100000  | 00130 |       |       |       | 00411 |
| P00047 | .104     | 00542 |       |       |       |       |

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|        |          |       |       |       |       |       |       |
|--------|----------|-------|-------|-------|-------|-------|-------|
| P00023 | ..10     | 00521 |       |       |       |       |       |
| P00007 | ..7      | 00360 |       |       |       |       |       |
| P00644 | INSTIFF. |       | 00262 |       |       |       |       |
| P00411 | Z00001.  | 00406 |       |       |       |       |       |
| P00702 | J        | 00433 | 00435 |       |       |       |       |
| P00703 | J6       | 00255 | 00256 |       |       |       |       |
| C00001 | JLINK    | 00163 | 00163 | 00210 | 00210 | 00216 | 00217 |
| C00000 | JOPT     | 00327 |       |       |       |       |       |
| C00003 | JSKIP    |       |       |       |       |       |       |
| P00704 | KG       | 00237 |       |       |       |       |       |
| C07641 | KLINK    | 00167 | 00167 | 00243 | 00243 | 00274 | 00274 |
| P00705 | KO       | 00272 |       |       |       |       |       |
| C00035 | KORR     | 00273 | 00273 | 00351 | 00351 | 00411 | 00412 |
|        |          | 00462 | 00504 | 00505 | 00505 | 00412 | 00413 |
| C00000 | LINK     | 00114 | 00114 | 00143 | 00143 | 00150 | 00150 |
| C17501 | LLINK    | 00173 | 00173 | 00363 | 00363 | 00315 | 00316 |
| P00005 | LLL      | 00115 | 00125 | 00136 | 00136 |       |       |
| P00006 | LNK      | 00120 | 00200 | 00203 | 00203 | 00234 | 00234 |
| P00706 | LNKST    | 00125 | 00142 |       |       |       |       |
| C00002 | M        | 00121 | 00132 | 00135 | 00142 | 00147 | 00151 |
| P00003 | MAXLNK   |       |       |       |       |       |       |
| C00003 | MYCONM   |       |       |       |       |       |       |
| C00000 | MYFORMT  |       |       |       |       |       |       |
| C00000 | MYIDENT  | 00131 | 00131 |       |       |       |       |
| C00002 | MYLNKTH  |       |       |       |       |       |       |
| C00001 | MYSECR   |       |       |       |       |       |       |
| C00331 | NAMEPN   |       |       |       |       |       |       |
| P00004 | WFILE    | 00124 | 00145 | 00201 | 00202 |       |       |
| C00007 | NK       | 00112 | 00332 |       |       |       |       |
| P00707 | NMAX     |       |       |       |       |       |       |
| C00000 | NOPRINT  |       |       |       |       |       |       |
| C01441 | NPASS    |       |       |       |       |       |       |
| P00710 | NT       | 00365 | 00433 | 00474 | 00500 |       |       |
| C00341 | NTYPE    |       |       |       |       |       |       |
| C00000 | NTYPES   |       |       |       |       |       |       |
| C00016 | NUN      | 00533 | 00533 |       |       |       |       |
| P00711 | NUPN     | 00113 | 00230 | 00231 | 00241 | 00345 | 00347 |
| C00151 | PEN      | 00253 | 00254 | 00265 | 00265 | 00247 | 00247 |
|        |          | 00507 |       |       |       |       |       |
| P00620 | PF00002. | 00573 |       |       |       |       |       |
| P00626 | PF00003. | 00621 |       |       |       |       |       |
| C00002 | PREFABRT |       |       |       |       |       |       |
| X00003 | Q1005100 | 00461 |       |       |       |       |       |
| X00001 | Q3000040 | 00326 |       |       |       |       |       |
| X00004 | Q8001CT. | 00000 | 00106 |       |       |       |       |
| X00011 | QMSINBL. | 00560 |       |       |       |       |       |
| X00005 | ROWORD   | 00157 | 00164 | 00170 |       |       |       |
| C00241 | REL      | 00263 | 00263 |       |       |       |       |
| C00113 | RVAL     |       |       |       |       |       |       |
| X00010 | STH.     | 00336 | 00517 | 00540 |       |       |       |
| C00013 | TAU      |       |       |       |       |       |       |
| C00074 | T6TLAT   |       |       |       |       |       |       |
| C00075 | T6TLOW   |       |       |       |       |       |       |
| X00002 | TREND.   | 00357 | 00524 | 00553 |       |       |       |

# 5.ATS UNPACKER

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|                 |       |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C00303 TIMEVAL  | 00302 | 00303 | 00353 | 00417 | 00420 | 00447 | 00464 | 00465 | 00511 | 00511 |
| C00207 TOA      | 00421 | 00446 | 00450 | 00463 |       |       |       |       |       |       |
| P00712 TOASUM   | 00156 |       |       |       |       |       |       |       |       |       |
| P00175 TS00001. | 00370 |       |       |       |       |       |       |       |       |       |
| P00474 TS00002. | 00434 |       |       |       |       |       |       |       |       |       |
| P00457 TS00003. | 00501 |       |       |       |       |       |       |       |       |       |
| P00513 TS00004. |       |       |       |       |       |       |       |       |       |       |
| C00000 TWORO    |       |       |       |       |       |       |       |       |       |       |
| P00105 UNPACKER | 00105 |       |       |       |       |       |       |       |       |       |
| C00005 VC       |       |       |       |       |       |       |       |       |       |       |
| C00001 WTO      |       |       |       |       |       |       |       |       |       |       |
| C00343 VTOC     |       |       |       |       |       |       |       |       |       |       |
| P00157 WS00001. | 00176 |       |       |       |       |       |       |       |       |       |
| P00371 WS00002. | 00475 |       |       |       |       |       |       |       |       |       |
| P00437 WS00003. | 00456 |       |       |       |       |       |       |       |       |       |
| P00504 WS00004. | 00512 |       |       |       |       |       |       |       |       |       |
| X00007 XMINOF   | 00407 |       |       |       |       |       |       |       |       |       |
| 00254 SYMBOLS   |       |       |       |       |       |       |       |       |       |       |



```

SUBROUTINE WPMMODIF
  WPMMODIF 11AUG71
  THIS SUBROUTINE MODIFIES VALUES OF CEP,REL, OR DBL FOR ALL WEAPONS
  .FOR BOMBERS ONLY, FOR MISSILES ONLY, OR FOR SPECIFIC WEAPON
  TYPES WHICH CAN BE CALLED FOR BY NAME. NOTIFICATIONS ARE ENTERED
  ON CARDS, THE FIRST WORD BEING WEAPON TYPE, THE SECOND EITHER CEP
  OR REL AND THE THIRD BEING A MULTIPLICATIVE FACTOR
  CUSE OPT 20APR71 *****
  C
  C USER PRINT AND OPERATION OPTIONS
  C
  COMMON/OPT/JOPT(20),ITGTHAX,PREFABRT,JSKIP
  TYPE LOGICAL JOPT
  C
  CEND OPT *****
  CUSE WPMMOD 20APR71 *****
  C
  C DATA FROM BASFILE
  C
  COMMON/WPMMOD/NTYPES,CEP(80),ICLASS(80),REL(80),NAMEWPN(80),
  1FUNC(80),ITYPE(200),DBL(200),NPASS
  C
  CEND WPMMOD *****
  CUSE 2 20APR71 *****
  C
  C DATA FROM BASFILE
  C
  COMMON/2/CCREL(20),IREG(200),IALERT(200),IPAY(200),YIELD(200),
  1CLASYPE(200),NALLTYPE(7,200),SKDNMTYP(7,200),DELWPTY(7,200),
  2ALLTYPE(7,200),NALLCLAS(7,50),SKDNMPL(7,50),DELWPL(7,50),
  3ALLCLAS(7,50)
  TYPE INTEGER CLASYPE
  TYPE REAL NALLTYPE,NALLCLAS
  C
  CEND 2 *****
  CALL PAGESKP
  PRINT 490,NPASS
  490 FORMAT(10X,5HPASS,5X,I10)
  PRINT 500
  500 FORMAT(10X,49HWEAPON TYPES AND ATTRIBUTES MODIFIED ON THIS PASS
  1/2X,7HPMTYPE,2X,9HATTRIBUTE,2X,13HATTRB CHANGED/1X,8HMODIFIED,
  2X,9HMODIFIED,3X,12HBY FACTOR OF)
  510 READ 520, IUPNTYPE, IUPNATT, IUPNATT, IGROUP
  520 FORMAT (2 (A8.2X), F10.4, I10)
  525 IF (IUPNTYPE.EQ.1H 1595,525)
  526 JSKIP = IUPNTYPE
  RETURN
  529 PRINT 530, IUPNTYPE, IGROUP, IUPNATT, IUPNATT
  530 FORMAT ( 3X, A3, I3, 3X, A8, 3X, '10.4)
  IF ( IUPNTYPE .EQ. 5HGROUP) 600, 540
  600 IF (IUPNATT.EQ.3HDBL) 531, 535
  531 DBL(IGROUP)=DBL(IGROUP)*IUPNATT
  GO TO 510
  535 YIELD(IGROUP)=YIELD(IGROUP)*IUPNATT
  GO TO 510

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FTNS.5

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540 IF (IMPNTYPE.EQ.7)HALFWPNS)550,560-
    CEP.REL. OR DRL IF MODIFIED FOR ALL WEAPONS
550 IF (IMPNTATT.EQ.3)REL)556,556
554 DO 555 IT =1,NTYPES
    REL(IT)=REL(IT)*XMPNATT
    IF (REL(IT).GT.1.0)557,555
557 REL(IT)=1.0
555 CONTINUE
    GO TO 510
556 IF (IMPNTATT.EQ.3)HCEP)559,510
559 DO 558 IT =1,NTYPES
    CEP(IT)=CEP(IT)*XMPNATT
558 CONTINUE
    GO TO 510
560 IF (IMPNTYPE.EQ.7)BOMBERS)562,570
562 IF (IMPNTATT.EQ.3)MREL)563,567
563 DO 566 IT=1,NTYPES
    IF (ICLASS(IT).EQ.2)564,566
564 REL(IT)=REL(IT)*XMPNATT
565 IF (REL(IT).GT.1.0)565,566
565 REL(IT)=1.0
566 CONTINUE
    GO TO 510
567 IF (IMPNTATT.EQ.3)HCEP)561,510
561 DO 569 IT =1,NTYPES
    IF (ICLASS(IT).EQ.2)568,569
568 CEP(IT)= CEP(IT)*XMPNATT
569 CONTINUE
    GO TO 510
570 IF (IMPNTYPE.EQ.8)MISSILES)572,580
572 IF (IMPNTATT.EQ.3)HREL)573,576
573 DO 575 IT =1,NTYPES
    IF (ICLASS(IT).EQ.1)574,575
574 REL(IT)=REL(IT)*XMPNATT
575 IF (REL(IT).GT.1.0)579,575
579 REL(IT)=1.0
575 CONTINUE
    GO TO 510
576 IF (IMPNTATT.EQ.3)HCEP)571,510
571 DO 578 IT =1,NTYPES
    IF (ICLASS(IT).EQ.1)577,578
577 CEP(IT)=CEP(IT)*XMPNATT
578 CONTINUE
    GO TO 510
580 DO 586 IT=1,NTYPES
    IF (NAMEPNTATT).EQ.IMPNTYPE)581,586
581 IF (IMPNTATT.EQ.3)HREL)582,584
582 REL(IT)=REL(IT)*XMPNATT
    IF (REL(IT).GT.1.0)REL(IT)=1.0
    GO TO 586
584 IF (IMPNTATT.EQ.3)HCEP)583,510
583 CEP(IT)= CEP(IT) * KUPNATT
586 CONTINUE
    GO TO 510
595 PRINT 596
596 FORMAT(/'2X,93)ALL MODIFICATIONS MADE. IF THE ABOVE TABLE IS EMPTY

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31000  
32000  
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85000  
86000

FTN5.5

1. NO WEAPON CHANGES WERE MADE ON THIS PASS)  
END

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87000  
98000

2696

5.4TS WPNMODIF

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

WPNMODIF

OPT

WPNMOD

2

EXTERNAL SYMBOLS

THEND.  
ORDDICT.  
PAGEEXP  
TSH.  
STM.  
ONSINGL.

IDENT

00477

00136

00004

01442

17524

WPNMODIF

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ED

0

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## 5.4TS WPMODIF

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|                  |       |       |       |       |       |       |       |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C18766 ALLCLAS   | 00465 | 00275 | 00275 | 00277 | 00277 | 00343 | 00343 | 00345 | 00345 | 00411 | 00411 | 00413 |
| C12144 ALLTYPE   | 00413 | 00444 | 00444 | 00446 | 00446 | 00446 | 00446 |       |       |       |       |       |
| P00464 BEGIN.    | 00151 | 00166 | 00170 | 00171 | 00171 | 00213 | 00213 | 00214 | 00215 | 00216 |       |       |
| C00000 CCREL     | 00251 | 00252 | 00273 | 00274 | 00274 | 00313 | 00313 | 00337 | 00340 | 00361 | 00362 | 00405 |
| C00001 CEP       | 00406 |       |       |       |       |       |       |       |       |       |       |       |
| C01464 CLASTYPE  | 00154 | 00162 | 00176 | 00221 | 00221 | 00461 | 00461 |       |       |       |       |       |
| P00463 CHWRT1.   | 00227 | 00227 | 00231 | 00231 | 00231 |       |       |       |       |       |       |       |
| P00471 COUNT.    |       |       |       |       |       |       |       |       |       |       |       |       |
| P00003 CREMT.    |       |       |       |       |       |       |       |       |       |       |       |       |
| C01131 DBL       |       |       |       |       |       |       |       |       |       |       |       |       |
| C16230 DELWPCL   |       |       |       |       |       |       |       |       |       |       |       |       |
| C07354 DELWPTYP  |       |       |       |       |       |       |       |       |       |       |       |       |
| P00001 DICT.     | 00140 | 00143 | 00146 | 00153 | 00153 | 00156 | 00161 | 00164 | 00175 | 00210 | 00220 | 00455 |
| P00466 ENDING.   | 00460 |       |       |       |       |       |       |       |       |       |       |       |
| P00000 EXIT.     | 00141 | 00205 | 00461 | 00464 | 00464 |       |       |       |       |       |       |       |
| P00003 FORMAT.   | 00176 | 00201 | 00221 | 00224 | 00224 | 00240 | 00243 | 00265 | 00302 | 00505 | 00331 | 00350 |
| C00501 FUNC      | 00353 | 00377 | 00416 |       |       |       |       |       |       |       |       |       |
| P00154 GG00000.  | 00144 |       |       |       |       |       |       |       |       |       |       |       |
| P00162 GG00001.  | 00154 |       |       |       |       |       |       |       |       |       |       |       |
| P00176 GG00002.  | 00162 |       |       |       |       |       |       |       |       |       |       |       |
| P00221 GG00003.  | 00206 |       |       |       |       |       |       |       |       |       |       |       |
| P00461 GG00004.  | 00453 |       |       |       |       |       |       |       |       |       |       |       |
| C00334 IALERT    |       |       |       |       |       |       |       |       |       |       |       |       |
| C00121 ICLASS    | 00315 | 00341 | 00341 | 00341 | 00341 | 00363 | 00363 | 00407 | 00407 |       |       |       |
| P00472 IGROUP    | 00173 | 00214 | 00226 | 00233 | 00233 |       |       |       |       |       |       |       |
| P00464 INITIAL.  | 00141 |       |       |       |       |       |       |       |       |       |       |       |
| C00644 IPAY      |       |       |       |       |       |       |       |       |       |       |       |       |
| C00024 IREG      | 00246 | 00251 | 00270 | 00273 | 00273 | 00310 | 00313 | 00334 | 00337 | 00356 | 00361 | 00402 |
| P00473 IT        | 00405 | 00417 | 00420 | 00426 | 00426 | 00436 | 00443 | 00447 |       |       |       |       |
| C00001 ITGTMAX   |       |       |       |       |       |       |       |       |       |       |       |       |
| C00621 ITYPE     |       |       |       |       |       |       |       |       |       |       |       |       |
| P00474 IXPATT    | 00171 | 00215 | 00224 | 00243 | 00243 | 00245 | 00305 | 00331 | 00353 | 00377 | 00424 | 00441 |
| P00475 IXPATTYPE | 00167 | 00176 | 00201 | 00203 | 00203 | 00212 | 00221 | 00240 | 00302 | 00350 | 00422 |       |
| P00435 .100001   |       |       |       |       |       |       |       |       |       |       |       |       |
| P00440 .100002   | 00433 | 00434 | 00237 | 00234 | 00234 | 00301 | 00330 | 00332 | 00347 | 00376 | 00400 | 00415 |
| P00162 .510      | 00232 | 00237 |       |       |       |       |       |       |       |       |       |       |
| P00201 .525      | 00442 | 00452 |       |       |       |       |       |       |       |       |       |       |
| P00203 .526      | 00177 |       |       |       |       |       |       |       |       |       |       |       |
| P00206 .529      | 00202 |       |       |       |       |       |       |       |       |       |       |       |
| P00226 .531      |       |       |       |       |       |       |       |       |       |       |       |       |
| P00233 .535      | 00225 |       |       |       |       |       |       |       |       |       |       |       |
| P00240 .540      | 00222 |       |       |       |       |       |       |       |       |       |       |       |
| P00243 .550      | 00242 |       |       |       |       |       |       |       |       |       |       |       |
| P00245 .554      |       |       |       |       |       |       |       |       |       |       |       |       |
| P00263 .555      | 00257 | 00260 |       |       |       |       |       |       |       |       |       |       |
| P00265 .556      | 00244 |       |       |       |       |       |       |       |       |       |       |       |
| P00261 .557      |       |       |       |       |       |       |       |       |       |       |       |       |
| P00300 .558      |       |       |       |       |       |       |       |       |       |       |       |       |

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|                 |                   |  |  |
|-----------------|-------------------|--|--|
| P00267 .559     |                   |  |  |
| P00302 .580     | 00241             |  |  |
| P00333 .561     |                   |  |  |
| P00305 .562     | 00304             |  |  |
| P00307 .563     |                   |  |  |
| P00317 .564     |                   |  |  |
| P00325 .565     |                   |  |  |
| P00327 .566     |                   |  |  |
| P00331 .567     | 00316 00323 00324 |  |  |
| P00343 .568     | 00306             |  |  |
| P00346 .569     |                   |  |  |
| P00350 .570     | 00342             |  |  |
| P00401 .571     | 00303             |  |  |
| P00353 .572     |                   |  |  |
| P00355 .573     | 00352             |  |  |
| P00365 .574     |                   |  |  |
| P00375 .575     | 00364 00371 00372 |  |  |
| P00377 .576     | 00354             |  |  |
| P00411 .577     |                   |  |  |
| P00414 .578     | 00410             |  |  |
| P00373 .579     | 00351             |  |  |
| P00416 .580     |                   |  |  |
| P00424 .581     |                   |  |  |
| P00426 .582     |                   |  |  |
| P00443 .583     |                   |  |  |
| P00441 .584     | 00425             |  |  |
| P00447 .586     | 00423             |  |  |
| P00453 .595     | 00200             |  |  |
| P00424 .600     | 00223             |  |  |
| P00665 .100000  | 00177             |  |  |
| P00066 .100001  | 00202             |  |  |
| P00100 .100002  | 00222             |  |  |
| P00101 .100003  | 00225             |  |  |
| P00102 .100004  | 00241             |  |  |
| P00103 .100005  | 00244             |  |  |
| P00104 .100006  | 00266             |  |  |
| P00105 .100007  | 00303             |  |  |
| P00106 .100008  | 00366             |  |  |
| P00107 .100009  | 00332             |  |  |
| P00110 .100010  | 00351             |  |  |
| P00111 .100011  | 00354             |  |  |
| P00112 .100012  | 00400             |  |  |
| P00113 .100013  | 00425             |  |  |
| P00114 .100014  | 00442             |  |  |
| P00003 .490     | 00147             |  |  |
| P00012 .500     | 00157             |  |  |
| P0005F .520     | 00165             |  |  |
| P00067 .530     | 00211             |  |  |
| P00115 .596     | 00456             |  |  |
| C00000 JOPY     |                   |  |  |
| C00003 JSKIP    | 00204             |  |  |
| C14734 NALLCLAS |                   |  |  |
| C01774 NALLTYPE |                   |  |  |
| C00361 NAMEWPN  | 00421 00421       |  |  |

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|                 |       |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C01441 NPASS    | 00150 | 00270 | 00271 | 00310 | 00311 | 00334 | 00335 | 00350 | 00357 | 00402 |
| C00000 MYPES    | 00266 | 00450 |       |       |       |       |       |       |       |       |
| X00003 PAGESKP  | 00193 |       |       |       |       |       |       |       |       |       |
| C00002 PREFABRT | 00142 |       |       |       |       |       |       |       |       |       |
| X00002 G000ICT. | 00000 |       |       |       |       |       |       |       |       |       |
| X00009 GWSINBL. | 00482 |       |       |       |       |       |       |       |       |       |
| C00241 REL      | 00253 | 00255 | 00255 | 00256 | 00262 | 00262 | 00317 | 00317 | 00321 | 00321 |
|                 | 00322 | 00326 | 00365 | 00365 | 00367 | 00367 | 00376 | 00374 | 00374 | 00427 |
|                 | 00427 | 00431 | 00432 | 00436 | 00437 |       |       |       |       |       |
| C15472 SKDWPCL  |       |       |       |       |       |       |       |       |       |       |
| C04564 SKDWPYP  |       |       |       |       |       |       |       |       |       |       |
| X00005 STM.     | 00145 | 00207 | 00454 |       |       |       |       |       |       |       |
| X00001 TMRND.   | 00152 | 00174 | 00217 | 00457 |       |       |       |       |       |       |
| P00264 TS00001. | 00250 |       |       |       |       |       |       |       |       |       |
| P00301 TS00002. | 00272 |       |       |       |       |       |       |       |       |       |
| P00330 TS00003. | 00312 |       |       |       |       |       |       |       |       |       |
| P00347 TS00004. | 00336 |       |       |       |       |       |       |       |       |       |
| P00376 TS00005. | 00360 |       |       |       |       |       |       |       |       |       |
| P00415 TS00006. | 00404 |       |       |       |       |       |       |       |       |       |
| P00450 TS00007. | 00417 |       |       |       |       |       |       |       |       |       |
| X00004 TSH.     | 00163 |       |       |       |       |       |       |       |       |       |
| P00136 WPNMODIF | 00136 |       |       |       |       |       |       |       |       |       |
| P00253 WS00001. | 00263 |       |       |       |       |       |       |       |       |       |
| P00275 WS00002. | 00300 |       |       |       |       |       |       |       |       |       |
| P00319 WS00003. | 00327 |       |       |       |       |       |       |       |       |       |
| P00341 WS00004. | 00346 |       |       |       |       |       |       |       |       |       |
| P00363 WS00005. | 00375 |       |       |       |       |       |       |       |       |       |
| P00407 WS00006. | 00414 |       |       |       |       |       |       |       |       |       |
| P00420 WS00007. | 00451 |       |       |       |       |       |       |       |       |       |
| P00476 XWPNAIT  | 00172 | 00230 | 00235 | 00254 | 00276 | 00320 | 00344 | 00366 | 00412 | 00430 |
|                 | 00445 |       |       |       |       |       |       |       |       |       |
| C01154 YIELD    | 00234 | 00236 | 00236 |       |       |       |       |       |       |       |
| 00203 SYMB0LS   |       |       |       |       |       |       |       |       |       |       |

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PROGRAM INTRFACE
  INTRFACE 18NOV71 *****
  C READS BASFILZ, THEN PROCESSES PLANTAPE *****
  C TO PRODUCE BOTH STRIKE TAPE(PTAPE) AND ABTAPE FOR MEMO. *****
  CUSE BURST 1MART1 *****
  COMMON/BURST/LDESIG(3),INDEXIG(3),LWPNIG(50),ITETIG(50),
  11HCBOFLI,NWPNIG,NTGTG *****
  CEND BURST *****
  C LDESIG NUMER PART OF DESIG CODE FOR TARGET REQ GROUND BURST
  C INDEXIG ENDING NUMBER FOR SPECIFIC HFIGT OF BURST (HGB)
  C LWPNIG WARHEAD TYPES WHICH REQUIRE GROUND BURST
  C ITETIG ALPHA PART OF DESIG CODE FOR TARGET REQ GROUND BURST
  C 1HCBOFLI DEFAULT MODE FOR HGB, A = AIR BURST, G = GROUND BURST
  C NWPNIG THE NUMBER OF WEAPONS REQUIRING GROUND BURST
  C NTGTG THE NUMBER OF TARGETS REQUIRING GROUND BURST
  C USED BY INTRFACE, IGETHOB
  C
  C CUMNO 1MART1 *****
  COMMON/CUMNO/ICUMNO(15) *****
  CEND CUMNO *****
  C ICUMNO CUMULATIVE NUMBER OF TYPES IN EACH CLASS (BKPT TABLES)
  C USED BY INTRFACE, NPLNETYP
  C
  C DATE 1MART1 *****
  COMMON/DATE/TOTTIME,DAHOMINO,YEAR *****
  CEND DATE *****
  C TOTTIME TIME IN HOURS SINCE BEG OF GAME FOR TARGET HIT
  C DAHOMINO BCD CODED - DAY, HOUR, MINUTE, AND MONTH OF TARGET HIT
  C YEAR BCD CODED - YEAR OF TARGET HIT
  C USED BY INTRFACE, FINOTIME
  C
  C DINDATA 22MART1 *****
  COMMON/DINDATA/HDT(90),KPL(90),JTF(90),HLA(90),HLC(90),TZT(90),
  1TZM(90),IWH(90),PA(90),CHT(90),IND(90),DES(90),TSK(90),CLC(90),
  2FLG(90) *****
  CEND DINDATA *****
  C DIMENSION ICHT(90)
  C EQUIVALENCE(ICHT,ICHT)
  C TYPE INTEGER DES,TSK,CLC,FLG
  C
  C HDT FLIGHT TIME
  C KPL SITE INDEX
  C JTF MISSILE INDEX
  C HLA TARGET LATITUDE
  C HLC TARGET LONGITUDE
  C TZT WEAPON SITE LATITUDE
  C TZM WEAPON SITE LONGITUDE
  C IWH WEAPON TYPE
  C PA RELIABILITY

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CMT      WARHEAD INDEX
IND      TARGET INDEX NUMBER
DES      TARGET DESIGNATOR CODE
TSK      TARGET TASK CODE
CLC      COUNTRY LOCATION CODE
FLS      TARGET FLAG CODE
USED BY INTRFACE
C
COMMON/FILABEL/INIDENT,INRUNNG,INDATE,
1  INFORM,INSECR,INTIME,INLGTH,INCOM(5)
C
FILABEL IS A FILEHANDLER COMMON BLOCK
C
FRACYLD 25AUG71 *****
COMMON/FRACYLD/YIELD(50),FISFRAC(50),YIELD(50),NMPN
TYPE INTEGER YIELD,FISFRAC
FRACYLD *****
DIMENSION FY(50),FF(50)
EQUIVALENCE (FY,YIELD),(FF,FISFRAC)
DATA (NMPN = 50)
C
YIELD   WEAPON YIELD
FISFRAC FISSION FRACTION FOR WEAPON
NMPN    NUMB OF WEAPONS
USED BY INTRFACE, YLDIFRAC
C
GAMETIME IMAR71 *****
COMMON/GAMETIME/KDAY,KMON,KYEAR
GAMETIME *****
C
KDAY    DAY OF GAME
KMON    MONTH OF GAME
KYEAR   YEAR OF GAME
USED BY INTRFACE, FINOTIME
C
IFUNC   IMAR71 *****
COMMON/IFUNC/IFUNC(80),JFUNC(20),INDFUNC(20)
IFUNC *****
C
IFUNC(I) FUNCTION OR COMMAND TO WHICH QUICK PLANE TYPE I BELONGS
JFUNC(I+1) IS HOLLERITH NAME FOR JFUNC(I) - (I,1) IS EVEN
INDFUNC(I, = JFUNC(I), = FUNCTION OR COMMAND CODE WHERE I IS 900
USED BY INTRFACE
C
INMCH   IMAR71 *****
COMMON/INMCH/INMCH(3)
INMCH *****
C
INMCH(I) = 1 IF AIR BURST OVER REGION I, = 0 IF GROUND BURST
USED BY INTRFACE, IGETHOB
C

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CUSE      IPR7      IMAR71 *****
COMMON/IPRT/IPRT *****
CEND
C          = 1 FOR PRINT OF WPI AND VEHIC TABLE
C          = 2 FOR NO PRINT OF TABLE
C
C        USED BY INTRFACE
C
CUSE      ISOUTH  20 OCT70 *****
COMMON/ISOUTH/ISOUTH *****
CEND
C          =IMS IF SOUTHERN LATITUDE, =IM OTHERWISE
C
C        USED BY INTRFACE, LATBT
C
CUSE      ITP      IMAR71 *****
COMMON/ITP/ITP *****
CEND
C          UNIT CURRENTLY BEING USED - NEEDED BY FILEHANDLER
C
C        ITP
C
C        USED BY INTRFACE
C
CUSE      MASTER  20 OCT70 *****
COMMON/MASTER/IMDATE,IDENTNC,ISIDE,MRPT,MCORR,NOPEN,NRECOVER
1,NREF,NBNDRY,NREGENTYPE,NRGROUP,NTOTBASE,NPAYLOAD,NASMTYPE,NMWDTYPE
2,NTANKBAS,NCOMPLEX,NCLASS,NALERT,NTGTS,NCORTYPE
MASTER *****
CEND
C          MASTER IS THE FIRST COMMON BLOCK ON BASFILE
C
C        USED BY INTRFACE, NOFFSYS
C
CUSE      MODE     20 OCT70 *****
COMMON/MODE/MODE *****
CEND
C          =1 FOR HIGH ALTITUDE, =4 FOR LOW ALTITUDE
C
C        USED BY INTRFACE, NOP
C
CCOMMON/MSLBMB/IPLTYP(40),DLWIS(40),NDWSS,JPLTYP(40),DLBMB(40),
1,NDBMB
C          IPLTYP(1) A MISSILE PLANE TYPE NUMBER
C          DLWIS(1) TIME INTERVAL IN HOURS BETWEEN LAUNCHES OF MISSILES OF
C          SAME TYPE FROM SAME BASE.
C          NDWSS NUMBER OF PLANE TYPES FOR WHICH DLWIS IS SPECIFIED
C          JPLTYP(1) A BOMBER PLANE TYPE NUMBER
C          DLBMB(1) TIME INTERVAL IN HOUR BETWEEN TAKEOFFS OF BOMBERS OF
C          TYPE JPLTYP(1) FROM THE SAME BASE
C          NDBMB NUMBER OF PLANE TYPES FOR WHICH DLBMB IS SPECIFIED
C
CUSE      MYIDENT  IMAR71 *****

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|      |                                                                |                                                       |        |
|------|----------------------------------------------------------------|-------------------------------------------------------|--------|
| CEND | COMMON/MYIDENT/MYIDENT                                         | *****                                                 | 1000   |
| C    | MYIDENT                                                        | *****                                                 | 128000 |
| C    | MYIDENT                                                        | FILE IDENTIFIER NEEDED BY FILEHANDLER                 | 129000 |
| C    | USED BY INTRFACE                                               | *****                                                 | 130000 |
| C    | USED BY INTRFACE                                               | *****                                                 | 131000 |
| C    | USED BY INTRFACE                                               | *****                                                 | 132000 |
| C    | USED BY INTRFACE                                               | *****                                                 | 133000 |
| C    | USED BY INTRFACE                                               | *****                                                 | 134000 |
| CUSE | NOPRINT                                                        | INBRT                                                 | 1000   |
| C    | COMMON/NOPRINT/NOPRINT                                         | *****                                                 | 134000 |
| C    | NOPRINT                                                        | *****                                                 | 135000 |
| CEND | DATA (NOPRINT=1)                                               | *****                                                 | 136000 |
| C    | NOPRINT                                                        | = 1 IF FILE LABEL TO BE PRINTED BY FILEHANDLER        | 137000 |
| C    | NOPRINT                                                        | *****                                                 | 138000 |
| C    | USED BY INTRFACE                                               | *****                                                 | 139000 |
| C    | USED BY INTRFACE                                               | *****                                                 | 140000 |
| C    | USED BY INTRFACE                                               | *****                                                 | 141000 |
| CUSE | OFFSYS                                                         | 20 OCTTU *****                                        | 1000   |
| C    | COMMON/OFFSYS/MASKO(100),INTYP(100),IPOTYP(100),ICOUNT(100),NT | *****                                                 | 140000 |
| C    | OFFSYS                                                         | *****                                                 | 142000 |
| C    | MASKO(1)                                                       | CONTAINS VALUE OF NOBOMB1(1),INWD1(1),NOBOMB2(1),     | 143000 |
| C    | INWD2(1),NASH(1),IASH(1), AND IPLNETYP CODE                    | *****                                                 | 144000 |
| C    | INTYP(1)                                                       | TYPE NAME                                             | 145000 |
| C    | IPOTYP(1)                                                      | PLAN GENERATOR TYPE NUMBER                            | 146000 |
| C    | ICOUNT(1)                                                      | NUMBER OF OFFENSIVE SYSTEMS CORRESPONDING TO MASKO(1) | 147000 |
| C    | NT                                                             | NUMBER OF DIFFERENT OFFENSIVE SYSTEMS                 | 148000 |
| C    | USED BY INTRFACE, NOFFSYS, PRNTOFFS                            | *****                                                 | 149000 |
| C    | USED BY INTRFACE, NOFFSYS, PRNTOFFS                            | *****                                                 | 150000 |
| C    | USED BY INTRFACE, NOFFSYS, PRNTOFFS                            | *****                                                 | 151000 |
| C    | USED BY INTRFACE, NOFFSYS, PRNTOFFS                            | *****                                                 | 152000 |
| CUSE | PAYLOAD                                                        | 20 OCTTU *****                                        | 1000   |
| C    | COMMON/PAYLOAD/NOBOMB1(40),INWD1(40),NOBOMB2(40),INWD2(40)     | *****                                                 | 2000   |
| C    | 1,NASH(40),IASH(40),NCM(40),NDCOYS(40),NADCCYS(40),INIRY(40)   | *****                                                 | 152000 |
| C    | PAYLOAD                                                        | *****                                                 | 153000 |
| C    | PAYLOAD                                                        | *****                                                 | 154000 |
| C    | PAYLOAD                                                        | *****                                                 | 155000 |
| C    | PAYLOAD                                                        | *****                                                 | 156000 |
| C    | PAYLOAD                                                        | *****                                                 | 157000 |
| C    | PAYLOAD                                                        | *****                                                 | 158000 |
| C    | PAYLOAD                                                        | *****                                                 | 159000 |
| C    | PAYLOAD                                                        | *****                                                 | 160000 |
| CUSE | MASK(1)                                                        | CODED TO CONTAIN NOBOMB1(1),INWD1(1),NOBOMB2(1),      | 1000   |
| C    | INWD2(1),NASH(1), AND IASH(1)                                  | *****                                                 | 159000 |
| C    | INWD2(1),NASH(1), AND IASH(1)                                  | *****                                                 | 160000 |
| C    | INWD2(1),NASH(1), AND IASH(1)                                  | *****                                                 | 161000 |
| C    | INWD2(1),NASH(1), AND IASH(1)                                  | *****                                                 | 162000 |
| C    | INWD2(1),NASH(1), AND IASH(1)                                  | *****                                                 | 163000 |
| C    | INWD2(1),NASH(1), AND IASH(1)                                  | *****                                                 | 164000 |
| C    | INWD2(1),NASH(1), AND IASH(1)                                  | *****                                                 | 165000 |
| CUSE | PROB1                                                          | ISBART                                                | 1000   |
| C    | COMMON/PROB1/REL(80),DBLK(200)                                 | *****                                                 | 165000 |
| C    | PROB1                                                          | *****                                                 | 166000 |
| C    | REL                                                            | WEAPON RELIABILITY                                    | 167000 |
| C    | DBLK                                                           | ACTUAL DEL PROBABILITY                                | 168000 |
| C    | DBLK                                                           | *****                                                 | 169000 |
| C    | DBLK                                                           | *****                                                 | 170000 |
| C    | DBLK                                                           | *****                                                 | 171000 |
| C    | DBLK                                                           | *****                                                 | 172000 |
| C    | DBLK                                                           | *****                                                 | 173000 |
| C    | DBLK                                                           | *****                                                 | 174000 |
| C    | DBLK                                                           | *****                                                 | 175000 |
| C    | DBLK                                                           | *****                                                 | 176000 |
| C    | DBLK                                                           | *****                                                 | 177000 |
| C    | DBLK                                                           | *****                                                 | 178000 |
| C    | DBLK                                                           | *****                                                 | 179000 |
| C    | DBLK                                                           | *****                                                 | 180000 |
| C    | DBLK                                                           | *****                                                 | 181000 |
| C    | DBLK                                                           | *****                                                 | 182000 |
| C    | DBLK                                                           | *****                                                 | 183000 |
| C    | DBLK                                                           | *****                                                 | 184000 |
| C    | DBLK                                                           | *****                                                 | 185000 |
| C    | DBLK                                                           | *****                                                 | 186000 |
| C    | DBLK                                                           | *****                                                 | 187000 |
| C    | DBLK                                                           | *****                                                 | 188000 |
| C    | DBLK                                                           | *****                                                 | 189000 |
| C    | DBLK                                                           | *****                                                 | 190000 |
| C    | DBLK                                                           | *****                                                 | 191000 |
| C    | DBLK                                                           | *****                                                 | 192000 |
| C    | DBLK                                                           | *****                                                 | 193000 |
| C    | DBLK                                                           | *****                                                 | 194000 |
| C    | DBLK                                                           | *****                                                 | 195000 |
| C    | DBLK                                                           | *****                                                 | 196000 |
| C    | DBLK                                                           | *****                                                 | 197000 |
| C    | DBLK                                                           | *****                                                 | 198000 |
| C    | DBLK                                                           | *****                                                 | 199000 |
| C    | DBLK                                                           | *****                                                 | 200000 |

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CUSE      STUB      INART1 *****
COMMON/STUB/LHTYPE,LCLASS,LSIDE,MLOW(2),MHI(2),G1,G2,G3,LPAYLOAD
1,LPGTYPE,LBASEID,LFUNC *****
CEND      STUB *****
C          VARIABLES ARE CONTAINED ON FIRST PART OF EACH PLANTAPE RECORD
C          USED BY INTRFACE, NPLNETYP, NOFFSYS, YLDERAC
C          USED BY INTRFACE, NPLNETYP, NOFFSYS, YLDERAC
C          TAB      20 OCT70 *****
COMMON/TAR/ITAB(21),NOPSHOT *****
CEND      TAB *****
C          ITAB      TABLE OF POSSIBLE OPERATION CODES
C          NOPSHOT DOBLEG NUMBER FOR DOG LEGS 3 OR 4 - 0 OTHERWISE
C          USED BY INTRFACE, NOP
C          FILES      3MAY71 *****
CUSE      COMMON/FILES/TGTFILE(2),BASFILE(2),IDUM(11),PLANTAPE
          TYPE INTEGER BASFILE,PLANTAPE
C          FILES *****
C          PLANTAPE CONTAINS DETAILED DATA ABOUT MISSILE, BOMBER, AND
          TANKER EVENTS FROM QUICK SYSTEM PLAN GENERATOR
C          BASFILE CONTAINS DATA FOR COMMON BLOCKS MASTER, PAYLOAD, PROBI,
          PUT OUT BY PREPALOC IN PLAN GENERATOR
C          ABTAP      TAPE OUTPUT BY INTRFACE, CONTAINS INPUT FOR MHCSSC
          DAMAGE ASSESSMENT MODELS - REST, SIDAC, AND OTHERS.
C          PTAP      STRIKE TAPE PUT OUT BY INTRFACE FOR SAME USE AS ABTAP
C          USED BY INTRFACE
C          VEHIC      INART1 *****
COMMON/VEHIC/CEP1(80),NVHC *****
CUSE      TYPE INTEGER CEP1
          DIMENSION FC(80)
          EQUIVALENCE(FC,CEP1)
          DATA (NVHC = 80)
          VEHIC *****
C          CEP1      WEAPON CEP
          NVHC      NUMBER OF WEAPON VEHICLES
C          USED BY INTRFACE
C          HOUR      REFERENCE HOUR FROM WHICH BEGINNING OF GAME IS COMPUTED
          DIMENSION JWPYS(9)
          DATA(JWPYS=3)H1C,3H1R,3H1R,3H1R,3H1R,3H1R,3H1R,3H1R,3H1R,3H1R
          DATA(HOUR=10)
          DATA(IIMREF=1)
          DATA(IIZERO=0),(IIBLANK=1H)
          TYPE INTEGER ABTAP,PTAP,STAP
          DATA (BASFILE=8),(ABTAP=6),(PTAP=4),(STAP=7)

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DATA(LOCATTR=8),(INSECTOR=5)
DATA(LASHTGT=0),(LAUNASH=14)
DATA(IUNIT=0),(ISORTIE=0)
DIMENSION IDS(1)
DATA(NPSTRKE=0),(NPAAB=0),(LINEA=0)
DIMENSION INX(90)
DIMENSION KP(18)
DIMENSION IOPTS(5)
TYPE REAL LA, L
C
  INITIAL TAPES
  CALL VINIT
  CALL SINIT
  CALL TAPPE(=1)
  PRINT 849
  DC 1 I=1,100
  1 ICOUNT(I)=0
  422 FORMAT(6(A9,2X))
C
  READ PRINT AND TAPE OUTPUT OPTIONS
  READ 422,(IOPTS(I),I=1,5)
  PRINT 280,(IOPTS(I),I=1,5)
  280 FORMAT(10X,6(A9,2X))
  L1 = L2 = L3 = L4 = L5 = 0
  C
  L1 = 1 IF STRIKE TAPE TO BE PRODUCED, 0 IF NOT
  C
  L2 = 1 IF STRIKE TAPE TO BE PRINTED, 0 IF NOT
  C
  L3 = 1 IF ABTAPE TO BE PRODUCED, 0 IF NOT
  C
  L4 = 1 IF ABTAPE TO BE PRINTED, 0 IF NOT
  C
  L5 = 0 IF PRINT STRIKE TAPE AND ABTAPE TOGETHER = 1 IF SEP
  C
  IOPT = 1 IF L2 = L4 = 1 AND L5 = 0, 0 OTHERWISE
  IF(IOPTS(1) .EQ. 1) 8696,8695
  8695 L1 = 1
  IF(IOPTS(2) .EQ. 1) 8696, 8697
  8697 L2 = 1
  8696 IF(IOPTS(3) .EQ. 1) 8700,8699
  8699 L3 = 1
  IF (IOPTS(4).EQ.1) 8700,8701
  8701 L4 = 1
  8700 IF(IOPTS(5) .EQ. 1) 8710,8711
  8711 L5 = 1
  8710 CONTINUE
  IOPT = L2 + L4 + (1 - L5)
  L6 = L1 + L3
  IF(L6)200,800
  200 CONTINUE
  200 PRINT 21
C
  21 FORMAT(4X,6HREGION,5X,11HLOWER SOUND,4X,11HUPPER SOUND,10X,3HHOB)
  C
  11 READ 31,(DESIG(I),INDESIG(I),INHOB(I)
  3 FORMAT(6I10)
  22 FORMAT(7X,11,11X,13,12X,13,15X,11)
  PRINT 22,1,DESIG(1),INDESIG(1),INHOB(1)
  IF(I)11,12
  12 J = 0
  C
  READ REQUIRED GROUND BURST WEAPONS- COMMON/BURST/
  12 J = 0
  PRINT 23
  23 FORMAT(30HREQUIRED GROUND BURST WEAPONS )
  16 I866IN = J + 1

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IEND = J * 8
READ 3, (IIPNG(I), I) = IBEGIN * IEND)
PRINT, (IIPNG(I), I) = IBEGIN * IEND)
DC 13 K=1,8
IF (IIPNG(J*K)) 13, 15
13 CONTINUE
J = J + 8
GO TO 16
15 NIPNG = J * K - 1
J = 0
C READ REQUIRED GROUND BURST TARGETS- COMMON/BURST/
PRINT 24
24 FORMAT(30HREQUIRED GROUND BURST TARGETS)
8 FORMAT(8(X,A2))
17 IBEGIN = J * 1
IEND = J * 8
READ 8, (ITGT(I), I) = IBEGIN, IEND)
PRINT 8, (ITGT(I), I) = IBEGIN, IEND)
DC 18 K=1,8
IF (ITGT(J*K), EQ, 24) 121, 18
18 CONTINUE
J = J + 8
GO TO 17
21 NTGTG = J * K - 1
C READ DEFAULT MODE FOR MOB- COMMON/BURST/
READ 9, INGBOFLT
9 FORMAT(8X,A1)
PRINT 25, INGBOFLT
25 FORMAT(20HOBG DEFAULT MODE = ,A1)
C READ DAY, MONTH, YEAR, AND BEG HOUR OF GAME- COMMON/GAMETIME/
C - AND PRINT OPTICH, IPRT, FOR WEAPON TABLE - COMMON/IPRT/
READ 2, KDAY, KMON, KYEAR, MHR, IPRT
2 FORMAT(310,F10.0,10X,I10)
PRINT 26, KDAY, KMON, KYEAR, MHR, IPRT
26 FORMAT(7HODAY = ,I2,9H MONTH = ,I2,8H YEAR = ,I2,7H MHR = ,F10.5,
18H IPRT = ,I1)
C DELBCHB TIME INTERVAL BETWEEN SUCCESSIVE BOMBER TAKEOFFS
C DELMIS TIME INTERVAL BETWEEN SUCCESSIVE MISSILE LAUNCHES
READ 4, DELBCHB, DELMIS
4 FORMAT(2F10.0)
PRINT 5, DELBCHB, DELMIS
5 FORMAT(11HDELBCHB = ,F10.5,9HDELMIS = ,F10.5)
DMISCB=DELMIS
SVDELBCHB=DELBCHB
C READ DELMIS BY PLANE TYPE NUMBER
PRINT 19
19 FORMAT(27HPLANE TYPE NUMBER---DELMIS/)
J=0
20 IBEGIN=J+1
IEND=J+8
READ 14, (IPLTYP(I), DELMIS(I), I=IBEGIN, IEND)
14 FORMAT(8(12,F8.0))
6 FORMAT(8(IPLTYP(I), DELMIS(I), I=IBEGIN, IEND)
6 FORMAT(8X, I2, 11X, F8.4)
DC 7 I=IBEGIN, IEND

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IF(IPLTYP(I).EQ.0)GO TO 31
7 CONTINUE
  J=J+8
  GO TO 20
31 NDMSS=1
  READ DELBOMB BY PLANE TYPE NUMBER
  PRINT 40
40 FORMAT(28HOPANE TYPE NUMBER---DELBOMB/)
  J=0
41 IBEIN=J+1
  IEND=J+8
  READ 14*(JPLTYP(I),OLEMB(I),I=1,IBEGIN, IEND)
  PRINT 6*(JPLTYP(I),OLEMB(I),I=1,IBEGIN, IEND)
  DO 42 I=IBEGIN, IEND
    IF(JPLTYP(I).EQ.0)GO TO 43
42 CONTINUE
  J=J+8
  GO TO 41
43 NDMBS=1
  JFUNC(I) FUNCTION OR COMMAND CODE = INDFUNC(I)
  JFUNC(I+1) MOLLERITH NAME FOR JFUNC(I)
  IFUNC(I) FUNCTION OR COMMAND TO WHICH QUICK PLANE TYPE I BELONGS
  PRINT 2040
2040 FORMAT (///,10X,25HFUNCTION OR FUNCTION OR,/, 10X,23HCOMMAND CO
      *DE COMMAND)
  DO 2000 I=1,20*2
    READ 2010*(JFUNC(I),JFUNC(I+1))
2010 FORMAT (2(A8,2X))
    INDFUNC(I) = NUMGET(JFUNC(I),8)
    IF (INDFUNC(I).EQ.0) 2020,2060
2060 PRINT 2050,INDFUNC(I),JFUNC(I+1)
2050 FORMAT (15X,12(A8))
2060 CONTINUE
2020 READ 2030*(IFUNC(I),I=1,80)
2030 FORMAT (9CI)
    PRINT 2070
2070 FORMAT (///,10X,39HFUNCTION OR COMMAND CODE VS. PLANE TYPE,/)
2080 PRINT 2080*(JFUNC(I),I=1,80)
    IF (I3) 27,28
27 IAB = 8H WILL
    GO TO 29
28 IAB = 8H WILL NOT
29 PRINT 30,IAB
30 FORMAT(10H1AB CARDS ,A8,13H BE PROCESSED)
      MHCUR=MHCHR+MHR
      INITIALIZE FILEHANDLE
      MIDENT = 8HINTRFACE
      CALL INITAPE
      READ BASFILE
      MIDENT = 7HBASFILE
      ITP = BASFILE $ CALL SETREAD
      ITESTRES = 8HNOV 75
      IF (INFORM .NE. ITESTRES) 620, 640
620 PRINT 630, ITESTRES, INFORM
630 FORMAT (///,15(2H *) ,5X,33H *RCNG BASFILE FORMAT. REQUESTED ,A8,

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      *5H GGT (AR)
      STOP
      640 CONTINUE
      C INPUT COMMON/MASTER/ FROM BASFILE
      CALL RDARRAY(INDATE,22)
      C SKIP TO COMMON ARRAY IN COMMON/BRKPNT/ ON BASFILE
      CALL SKIP(501)
      C READ / CUMNO/ FROM BASFILE
      CALL RDARRAY(ICUMNO,15)
      C READ /FILES/ FROM BASFILE
      CALL SKIP(301)
      C CALL RDARRAY(IGTFILE,16)
      C SKIP /CORRCHAR/ AND /ASMTABLE/ ON BASFILE
      CALL SKIP(701)
      C READ /PAYLOAD/ FROM BASFILE
      CALL RDARRAY(NOBOMB,400)
      C SKIP COMMON BLOCKS/OPENREF/, AND / PLANTYPE/ ON BASFILE
      CALL SKIP(193)
      C READ YIELD AND FISSION FRACTION FROM / WARHEAD/ INTO /FRACYLD/
      CALL RDARRAY(YIELD,NBPN)
      CALL SKIP(NBPN)
      C CALL RDARRAY(FISFRAC,NBPN)
      C SKIP /NPNEG/ AND RANGE ARRAY IN /NPNTYPE/ ON BASFILE
      CALL SKIP(100)
      C READ CEP ARRAY FROM BASFILE INTO / VEHIC/
      CALL RDARRA(CEP1,NVHC)
      C SKIP TO REL ARRAY IN / NPNTYPE/ ON BASFILE
      CALL SKIP(460)
      C READ REL INTO / PROB1/ FROM BASFILE
      CALL RDARRAY(REL,80)
      C SKIP TO DBLREAL ARRAY IN / EXCESS/ ON BASFILE
      CALL SKIP(8527)
      C READ DBLX ARRAY FROM /EXCESS/ ON BASFILE INTO /PRC81/
      CALL RDARRAY(DBLX,200)
      C REWIND AND RELEASE BASFILE
      CALL TERMTEPE
      C CONVERT ALL CEPS TO ALPHANUMERICS
      DO 423 I = 1,NVHC
      FC(I) = FC(I) * 60.8
      IF(FC(I) .GT.999.) FC(I) = 999.
      CEP1(I) = FC(I)
      423 CONTINUE
      C CONVERT ALL YIELDS AND FISSION FRACTIONS TO ALPHANUMERICS
      DO 424 J = 1,NBPN
      YIELD(J) = FY(J) * 100.
      YIELD(J) = YIELD(J)
      YIELD(J) = KN0BLANK(YIELD(J))
      ITEM = FF(J) * 100.
      ENCODE(3,425,ITEM)ITEM
      425 FORMAT(I3)
      424 FISFRAC(J) = NOBLANK(ITEMP)
      424 CONTINUE
      C IF (IPRT .GE. 2) 160,432
      PRINT WEAPON AND VEHICLE TABLES FROM /FRACYLD/ AND /VEHIC/
      PRINT 175
      160 PRINT 166,(J,CEP1(J),J=1,NVHC)

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PRINT 176
PRINT 167,(J,YIELD(J),FISFRAC(J),JMI,NWPN)
167 FORMAT(//,10X,18,10X,A8,10X,A8)
176 FORMAT(1H1,/,15X,13HVEHICLE TABLE )
176 FORMAT(1H1,/,18X,12HWEAPON TABLE )
166 FORMAT (/,10X,18,10X,18)
432 CONTINUE
REWIND PTAPE
REWIND STAPE
REWIND ABTape
PRINT 849
CALL TIME1(1)
BEGIN MAIN LOOP
CALL TIME1(2)
ISVUNIT=IUNIT
ISVORTIE=ISORTIE
SVOMISS=MISS
READ HEADER BLOCK OF PLANTAPE RECORD (WORDS 1 - 25) - COMMON/STUB/
C READ (PLANTAPE) (LSIDE,LGROUP,LCORR,LSORTIE,LBASEID,LVEHID
1,LCLASS,LTYPE,LREQ,LALERT,LPAYLOAD,LDPEN,LTOT,PLAN
2,G1,G2,G3,MLOW(1),MLOW(2),MHI(1),MHI(2),LHTYPE,LPGTYPE,LFUNC,
3,LAST)
IF (LCLASS.NE.3) GO TO 301
LHTYPE=ISLANK
LPGTYPE=0
301 CONTINUE
C IF (LAST.EQ.4) LAST=800,310
C PROCESS ELEMENTS WHICH ARE SAME FOR BOMBERS, MISSILES, TANKERS.
C DETERMINE PLANE TYPE CODE (IPLNETYP) COMMAND OR FUNCTION CODE
C (ICMO), AND CEP(KCEP) FOR STRIKE CARD.
310 IPLNETYP = NPLNETYP(LTYPE)
ISVPLNTYP=IPLNETYP
NCMD = IFUNC(IPLNETYP)
ICMO = KNOBLANK(NCMD)
IGFFSYS = NOFFSYS(IPLNETYP)
IPLNETYP = KNOBLANK(IPLNETYP)
KCEP=KNOBLANK(CEP1(LPGTYPE))
LPLAN IS 0 IF RECORD IS FOR TANKER
IF (LPLAN.EQ.0) 311,312
311 LPLAN=LTOT
312 CONTINUE
C MISSILES, BOMBERS OR TANKERS
C WHEN LCLASS=3, THE RECORD IS FOR A TANKER, PART 2 OF A TANKER
C RECORD DIFFERS FROM MISSILE AND BOMBER RECORDS, AND NG STRIKE
C CARDS ARE PRODUCED FOR TANKERS.
410 IF (LCLASS.EQ.3) 600,410
NCHFLAG=NCM(LPAYLOAD)
IF (LCLASS.EQ.1) 500,450
C READ TARGET INFORMATION BLOCK FOR MISSILE FROM PLANTAPE
500 DO 5010 I=1,LPLAN
READ (PLANTAPE) HDY(I),KPL(I),JTP(I),HLA(I),HLO(I),T2T(I),TZN(I),
11WH(I),PA(I),IND(I),DES(I),TSK(I),CLC(I),FLB(I)
5010 CONTINUE
IF (IND=SS.EQ.0) GO TO 33
DO 32 I=1,NOMISS
IF (IPLTYP(I).NE.ISVPLNTYP) GO TO 32

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DELMIS=DELMIS(I)
GC TO 5011
32 CONTINUE
33 DELMIS=SVDELMIS
5011 CONTINUE
C PROCESS ALL STRIKE CARDS FOR MISSILES
IF(L1)501,3011
501 UNIT=ISVUNIT
ISCRITIE=ISVORTIE
DMISS=SVDMISS
DC 3010 IM = 1,PLAN
C DETERMINE UNIT AND SORTIE NUMBERS, QUICK TARGET INDEX NUMBER,
C AND TARGET DESIGNATOR AND TASK CODES FOR STRIKE CARD
KUNIT=IUNIT
KSCRTIE=ISORTIE
IUNIT = KNOBLANK(KPL(IM))
ISCRITIE = KNOBLANK(JTP(IM))
IF(KUNIT=IUNIT)3008,3005,3008
3005 IF(KSORTIE=ISCRITIE)3006,3008,3006
3006 DMISS=DMISS+DELMIS
GC TO 3009
3008 DMISS=0.
3009 TGTTIME=GL*HGT(IM)+HHOUR+DMISS
ICNTRY=CLC(IM)
INDEXT=IND(IM)
NOWDES = DES(IM)
NCWTSK=TSK(IM)
C DETERMINE TARGET HIT DATE AND TIME FOR STRIKE CARD
CALL FINDTIME
FSC = IM
ASSIGN 3010 TO IPROCSC
GC TO 590
3010 CONTINUE
3011 IF(L3)3020,300
C PROCESS ONE A-CARD FOR EACH MISSILE
3020 UNIT=ISVUNIT
ISCRITIE=ISVORTIE
DMISS=SVDMISS
DC 3025 IM=1,PLAN
KUNIT=IUNIT
KSCRTIE=ISORTIE
IUNIT=KNOBLANK(KPL(IM))
ISCRITIE=KNOBLANK(JTP(IM))
IF(KUNIT=IUNIT)3023,3021,3023
3021 IF(KSORTIE=ISORTIE)3022,3025,3022
3022 DMISS=DMISS+DELMIS
GC TO 3024
3023 DMISS=0.
3024 STIME=81+DMISS
ASSIGN 3025 TO IPROCA
GC TO 710
3025 CONTINUE
IUNIT=ISVUNIT
ISCRITIE=ISVORTIE
DMISS=SVDMISS
DC 3009 IM=1,PLAN

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KUNIT=IUNIT
KSORIE=ISORTIE
IUNIT=KNORLANK(KPL(IM))
ISORTIE=KNORLANK(JTP(IM))
IF (KUNIT=IUNIT) 3033,3026,3033
3026 IF (KSORIE=ISORTIE) 3027,3028,3027
3027 DMISS=DMISS+DELMIS
GO TO 3034
3028 DMISS=0.
GO TO 3030
C PROCESS ONE B-CARD FOR EACH MISSILE LAUNCH
C DETERMINE LEG NUMBER, OPERATION CODE, LOCATION IDENTIFIER,
CSUBR INTRFACI 18NOV71 *****
C REGION CODE, TASK CODE, COUNTRY LOCATION CODE, LATITUDE AND
C LONGITUDE AT END OF LEG, TIME OF THE EVENT, WARHEAD TYPE, MODE,
C ECM, AND MOB FOR B-CARD
3033 DMISS=0.
3034 LEG=8H 00 01
TOP = 8H
ICB8=1H
IDES(1) = KNORLANK(KPL(IM))
ITASK=2H
ICNTRY=2H
LAT = LATRT(TTY(IM))
LON=LOMBT(TZN(IM))
ICUMTIME=TIME(81)HHOUR+DMISS:
IPAR1 = KNORLANK(IG)
MODE = IECH = INHX = 0
ASSIGN 3031 TO IPROCB
GO TO 810
C PROCESS ONE B-CARD FOR EACH RV CORRESPONDING TO THAT RV ON
C TARGET. THE OP CODE FOR A MIRV ON TARGET IS 11-NOT 10 (SOURCE IS
C A.M. SCHROEDER ).
3031 LEG=0
TOP=8H 10
IF (IMIRV(LPAYLOAD) .GT.0) TOP = 8H 11
IBLANK = 1H
3030 LEG1=LEG1 + 1
LEG = KNORLANK(LEG1)
ICNTRY=CLC(IM)
ENCODE(8,541,JOESIG)IBLANK+DES(IM)
541 FORMAT(A3,A5)
IDES(1) = JOESIG
DECODE(8,153,DES(IM))IDUMY,INUM
IREGB=1H1
IF (INUM .LE. 499) GO TO 3035
IREGB=1H2
IF (INUM .LE. 799) GO TO 3035
IREGB=1H3
3035 ITASK = TSK(IM)
LAT = LATRT(HLA(IM))
LON = LONRT(HLG(IM))
TOTTIME=GL+HGT(IM)HHOUR+DMISS
ICUMTIME = NTIME(TGTTIME)
IPAR1 = KNORLANK(IINH(IM))
INHX = INX(IM)

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DELMIS=DL*IS(I)
GO TO 5011
32 CONTINUE
33 DELMIS=SVDELMIS
5011 CONTINUE ALL STRIKE CARDS FOR MISSILES
C
  IF(L1)501,3011
  501 IUNIT=ISVUNIT
  ISORTIE=ISVORTIE
  DMIS=SVDMISS
  DC 3010 IM=I,PLAN
  DETERMINE UNIT AND SORTIE NUMBERS, QUICK TARGET INDEX NUMBER,
  AND TARGET DESIGNATION AND TASK CODES FOR STRIKE CARD
  KUNIT=IUNIT
  KSORTIE=ISORTIE
  IUNIT=KNORLANK(RPL(IM))
  ISORTIE=KNORLANK(JTP(IM))
  IF(KUNIT=IUNIT)3008,3005,3008
  3005 IF(KSORTIE=ISORTIE)3006,3008,3006
  3006 DMIS=DMIS+DELMIS
  GO TO 3009
  3008 DMIS=0.
  3009 TGLTIME=GL*MDT(IM)+HOUR*DMIS
  ICNTRY=CLC(IM)
  INDEX=ING(IM)
  NOWDES=DES(IM)
  NORTSK=TSK(IM)
  DETERMINE TARGET HIT DATE AND TIME FOR STRIKE CARD
  CALL FINDTIME
  ISC=IM
  ASSIGN 3010 TO IPROCSC
  GO TO 690
3010 CONTINUE
3011 IF(L3)3020,300
C
  PROCESS ONE A-CARD FOR EACH MISSILE
  3020 IUNIT=ISVUNIT
  ISORTIE=ISVORTIE
  DMIS=SVDMISS
  DC 3025 IM=I,PLAN
  KUNIT=IUNIT
  KSORTIE=ISORTIE
  IUNIT=KNORLANK(RPL(IM))
  ISORTIE=KNORLANK(JTP(IM))
  IF(KUNIT=IUNIT)3023,3021,3023
  3021 IF(KSORTIE=ISORTIE)3022,3025,3022
  3022 DMIS=DMIS+DELMIS
  GO TO 3024
  3023 DMIS=0.
  3024 STIME=GL*DMIS
  ASSIGN 3025 TO IPROCA
  GO TO 710
3025 CONTINUE
  IUNIT=ISVUNIT
  ISORTIE=ISVORTIE
  DMIS=SVDMISS
  DC 3000 IM=I,PLAN

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        ASSIGN 3000 TO IPROC8
        GO TO 810
    3000 CONTINUE
        GO TO 300
    C      READ PLAN INFORMATION BLOCK FOR TANKER EVENTS FROM PLANTAPE
    600 READ(PLANTAPE)(HOT(I),KPL(I),JTP(I),HLA(I),HLC(I),CMT(I),I=1,LTOT)
    605 IF (L3) 605, 300
        NCMFLAG = 0
        IUNIT = KNOBLANK(LBASEID)
        DBCHMB = 0
        GO TO 705
    C      PROCESS STRIKE CARDS FOR BOMBERS
    650 IUNIT = KNOBLANK(LBASEID)
        ISORTIE = KNOBLANK(LVEMID)
        IF(NDBMB.EQ.0) GO TO 659
        DO 651 I=1,NDBMB
            IF(JPLTYP(I).NE.ISVPLNTP) GO TO 651
            DELCOMB=DLBMB(I)
            GO TO 660
        651 CONTINUE
        659 DELCOMB=SVDELROM
        660 CONTINUE
        DBCHMB=(LVEMID-1)*DELBOMB
    C      READ PLAN INFORMATION BLOCK FOR BOMBER EVENTS FROM PLANTAPE
        READ(PLANTAPE)(HOT(I),KPL(I),JTP(I),HLA(I),HLC(I),TZI(I),TZNI(I),
            I=1,IPA(I),CMT(I),I=1,LTOT)
    C      READ TARGET INFORMATION BLOCK FOR BOMBER FROM PLANTAPE
        KK = 0
        DO 510 I = 1,LTOT
            IF(JTPI(I).EQ.LOCLATTR.OR.JTP(I).EQ.LASMTGT) GO TO 509
            GO TO 510
        509 KK=KK+1
        510 CONTINUE
        KKS=KK
        IF(L1) 511,700
    511 CONTINUE
        DO 670 I=1,PLAN
            C      PROCESS BOMBER STRIKE CARD ONLY FOR AN EVENT WHICH IS AN ASM
            C      ON TARGET OR A BOMB IMPACT.
            JTP2=JTP(I)
            IF(JTPI.EQ.LOCLATTR) 680,671
            671 IF(JTPI.EQ.LAUNASM) 672,673
            673 IF(JTPI.EQ.LASMTGT) 674,670
            672 ISTIWH=IWH(I)
            IWH(I)=0
            GO TO 670
        674 IWH(I)=ISTIWH
        680 CONTINUE
            TGTIIME=CMT(I)+HHOUR*DBCHMB
            CALL FINDTIME
            KK=JITLE(KPL(I),IND,KKS)
            INDEXT=IND(KK)
            NCMDES = DES(KK)
            NCMTSK = TSK(KK)

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ICNTRY=CLC(KK)
ISC = I
ASSIGN 670 TO IPROCSC
GO TO 690
670 CONTINUE
700 IF (L3) 705,300
C FORMAT AND WRITE A STRIKE CARD ON THE STRIKE TAPE (PTAPE)
690 JDESIG=NOWDES
ITASK=NOWTSK
LA = HLA(ISC)
LC = LLO(ISC)
IF ( LCLASS.EQ. 2 ) 6911,6912
6911 LA = LA + L27(ISC)
LC = LC + L2N(ISC)
6912 LATGT = LATS(LA)
LONTGT = LONS(LC)
IMPNTYPE = IWH(ISC)
CALL YLOFRAC(IMPNTYPE,YIELD,IFRAC,KYIELD)
PABORT = 1-PA(ISC)
IPABORT = IPRCB(PABORT)
DECODE DESIG TO OBTAIN QUICK REGION
C DECODE(18,153,NOWDES)IDUMY,INUM
153 FORMAT(A2,13,X)
IREG = 1
IF (INUM.LE. 499 ) GO TO 154
IREG = 2
IF (INUM .LE. 799 ) GO TO 154
IREG = 3
154 CONTINUE
PLS = DBLX(LGROUP)
WSR = REL(LPOTYPE)
PTP = PA(ISC)/PLS * WSR)
IPLS = IPRCB(PLS)
IPTP = IPRCB(PTP)
IWSR = IPRCB(WSR)
KNCHB=I8ETHOB(JDESIG,IMPNTYPE)
IMPNTYPE=KNCHB/LANK(IWH(ISC)
IF (KNCHB.EQ.1HA)692,693
692 IHX(ISC)=1
GO TO 694
693 IMX(ISC)=0
694 CONTINUE
NPSTRIKE = NPSTRIKE + 1
WRITE(PTAPE,691) ICMD, INDEX, DMOHMO, YEAR, LATGT, LONTGT,
JDESIG,IPLS,IPTP,IWSR,IREG,IFRAC,YIELD,KHOB,KCEP,ITASK,
ICNTRY,IPABORT,IPLNETYP,IMPNTYPE,UNIT,ISORTIE
691 FORMAT(IHS,IHQ,I1,15,AB,R2,R7,AB,AS,3R2,I1,A3,1X,RS,A1,
12X,R3,1X,2A2,1X,R2,1X,2R2,R4,R2,1X)
JFRAC=IFRAC
IF (KYIELD.LT.100) JFRAC=3H
IMPNSYS=JMPNSYS(NCMD)
WRITE(STAPE,695) ICMD, INDEX, DMOHMO, YEAR, LATGT, LONTGT, JDESIG,
IPLS,IPTP,IWSR,IREG,JFRAC,YIELD,KHOB,KCEP,ITASK,
ICNTRY,IPABORT,IMPNSYS,IPLNETYP,UNIT,ISORTIE
695 FORMAT(IHS,IHQ,I1,15,AB,R2,R7,AB,AS,3R2,I1,A3,1X,RS,A1,
12X,R3,1X,2A2,1X,R2,A3,R2,R4,R2,1X)

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IF (L2) 203, 7310
203 IF (IOPT) 260, 261
C PRINT THE STRIKE CARD
260 PRINT 262
262 FORMAT (1H0)
261 PRINT 204, ICHG, INDEX, DAHOMING, YEAR, LATTGT, LONTGT, JDESIG,
1PLS, IPTP, IHS, IREG, IFRAC, IYIELD, KHOB, KCEP, ITASK, ICNTRY,
2IPABORT, IPLNETYP, IMPNTYPE, IUNIT, ISORT, IE, IMPSTRIKE, IMPNSYS
204 FORMAT (10X, 1H0, 11, 15, A8, R2, R7, A8, A5, 3R2, 11, A3, 1X, R5, A1,
12X, R3, 1X, 2A2, 1X, R2, 1X, 2R2, R4, R2, 11X, 110, 5X, A3)
7310 GO TO IPROCSC
C CALCULATE STIME FOR BOMBER OR TANKER A-CARD
705 STIME=CHT(1)*DBOMB
ASSIGN 750 TO IPRCCA
C FORMAT AND WRITE AN A-CARD ON THE SORTIE SPECS. TAPE (ABTAPE).
710 IREFTIME=TIME(STIME*HOUR)
LINEA=LINEA+1
IF (LINEA.GE.1000) 711, 712
711 LINEA=0
712 LINEB=0
LINEA=KNOBANK(LINEA)
WRITE(ABTAPE, 715) LINEA, IUNIT, ISORTIE,
IPLNETYP, IREFTIME, ITIMEF
715 FORMAT (1HA, R3, R4, R2, 2X, R2, 1H0, 2X, 1H0, R4, 11, 7H0CJ0000, 50X)
IF (IOPT) 205, 7311
C PRINT THE A-CARD (TOGETHER WITH STRIKE CARD(S)).
205 NPAAB = NPAAB + 1
PRINT 206, LINEA, IUNIT, ISORTIE, IPLNETYP, IREFTIME, ITIMEF,
NPAAB
206 FORMAT (10X, 1HA, R3, R5, R2, 1X, R2, 1H0, R4, 11, 7(1HC), 50X, 110)
7311 GO TO IPRCCA
C PROCESS ONE B-CARD FOR EACH BOMBER OR TANKER EVENT.
750 IECM=0
MODE = 1
NCPSHOT = 3
LEGI = 0
DO 775 I=1, LPLAN
IMXX = 0
IDES(1) = 1H
ICNTRY=2H
ITASK=2H
IREG=1H
IF (1.EQ.MLOW(I)) 772, 774
772 NCPSHOT = 4
IF (NCHFLAG) 773, 774
773 IECM = 1
774 JTP1 = JTP(1)
IF (JTP1.EQ.INSPECTOR) 775, 771
IOP = NOP(JTP1)
771 NNIO=NUMGET(IOP, 8)
LA = HLA(7)
LC = HLC(2)
IF (JTP1.EQ.LOCLATTR) OR (JTP1.EQ.LASHTGT) 784, 785
784 LA = LA+ZT(1)
LC = LC+ZTN(1)
IMXX=IMXX(1)

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      NPAAB = NPAAB + 1
      910 FORMAT (10A8)
      IF (ECF,ABTAP) 9916,917
      917 DECODE (8,950,KP11) KP1
      950 FORMAT (A1,7X)
      IF (KP1.EQ.1NA) 218,219
      218 PRINT 262
      219 PRINT 220,(KP1(I),I = 1,10),NPAAB
      220 FORMAT (10X,10A8,110)
      GO TO 905
      9916 REWIND ABTAP
      C PRINT OFFENSIVE SYSTEMS TABLE
      916 CALL PRNTOFFS
      995 PRINT 849
      PRINT 850
      849 FORMAT(1H1)
      C PRINT TIMING INFORMATION
      850 FORMAT(//,30X,18HTIMING INFORMATION)
      CALL TIMEWE(2)
      CALL TIMEWE(0)
      WRITE (44,7777)
      PRINT 7777
      7777 FORMAT(414 '*** PROCESSOR INTERFACE COMPLETED ***' )
      STOP
      END

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261000  
262000  
263000  
264000  
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269000  
270000  
271000  
272000  
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274000  
275000  
276000  
277000  
278000  
279000  
280000  
281000  
282000  
283000  
284000  
285000

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## INTERFACE

## IOENT

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

## INTERFACE

BURST 00155  
CUMNO 00017  
DATE 00003  
DINDATA 02506  
FILABEL 00014  
FRACYLD 00227  
GAMETIME 00003  
IFUNC 00170  
INHCS 00003  
IPRT 00001  
ISOUTH 00001  
ITP 00001  
MASTER 00026  
MODE 00001  
MSLBMB 00242  
MYIDENT 00001  
NPRINT 00001  
OFFSYS 00621  
PAYLOAD 00620  
PAYLOAD2 00050  
PROB1 00430  
STUB 00016  
TAB 00026  
FILES 00020  
VERIC 00121

## EXTERNAL SYMBOLS

QBENTRY  
THEND  
QBSTOPPS  
QIG10100  
QBODICT  
VINTRFAC  
STORAGE  
TNAME  
NUMGET  
INITAPE  
SETREAD  
RDARRAY  
SKIP  
TERMTAPE  
KNOBLANK  
NOBLANK  
NPLNETYP  
NOFFSYS  
FINOTIME  
LATRY  
LONRT  
NTIME  
ITLE  
LATS  
LONS  
YLDFRAC

5.ATS INTERFACE

IPROB  
IGETHOB  
NOP  
PRNTOFFS  
QBQIFEOF  
EFT.  
REW.  
TSH.  
DEC.  
TSB.  
STH.  
ENC.  
ONSINGL.

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|        |          |
|--------|----------|
| P00202 | ABTAPE   |
| P03223 | AN00051* |
| P04324 | AN00065* |
| C00002 | BASFILE  |
| C00000 | CEPI     |
| C02222 | CLC      |
| C01452 | CMT      |
| P04713 | CNVRT1*  |

[illegible]

| PC4751 | COUNT. |
|--------|--------|
| PC0216 | CRFMT. |

|        |           |
|--------|-----------|
| CO0001 | DAHOMINGO |
| CO0120 | DBLX      |
| P04752 | DBOMB     |
| X00G43 | GEC.      |
| P04753 | DELBOMB   |
| P04754 | DELMIS    |
| CO1736 | DES       |
| PO0001 | DICT.     |

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| 04535    | 04562 | 04600 | 04642    |       |
| 02627    | 02633 | 03553 | 04300    | 01437 |
| 03470    | 03553 | 04356 | 04300    | 01635 |
| 04111    | 04356 | 01405 | 04300    | 01741 |
| 01372    | 01405 | 01622 | 01624    | 02162 |
| 01616    | 01622 | 01685 | 01717    | 02526 |
| 01694    | 01685 | 02076 | 02121    | 02550 |
| 02073    | 02076 | 02436 | 02463    | 02564 |
| 02434    | 02436 | 02544 | 02545    | 02566 |
| 02540    | 02542 | 02562 | 02563    | 02566 |
| 02560    | 02561 | 02562 | 02566    | 02566 |
| 02663    | 02664 | 02665 | 02666    | 03317 |
| 03210    | 03212 | 03224 | 03226    | 03425 |
| 03420    | 03421 | 03422 | 03423    | 03733 |
| 03466    | 03467 | 03470 | 03471    | 03750 |
| 03743    | 03744 | 03745 | 03746    | 04001 |
| 03756    | 03757 | 03760 | 03761    | 04001 |
| 04011    | 04012 | 04013 | 04014    | 04016 |
| 04024    | 04025 | 04026 | 04027    | 04052 |
| 04052    | 04053 | 04054 | 04055    | 04067 |
| 04075    | 04076 | 04077 | 04100    | 04102 |
| 04146    | 04147 | 04148 | 04149    | 04165 |
| 04135    | 04137 | 04137 | 04140    | 04222 |
| 04432    | 04433 | 04434 | 04436    | 04441 |
| 04447    | 04450 | 04451 | 04454    | 04466 |
| 04476    | 04477 | 04501 | 04503    | 04505 |
| 04513    | 04570 | 04610 | 04633    |       |
| 01425    | 01513 | 01513 | 01602    | 01630 |
| 01750    | 01774 | 02065 | 02102    | 02144 |
| 02412    | 02472 | 02572 | 02572    | 03642 |
| 04173    | 04453 | 04516 | 04630    | 04641 |
| 04054    |       |       |          |       |
| 03406    | 02761 | 03045 | 03110    |       |
| 02726    | 03223 | 03466 | 03547    | 04273 |
| 03217    |       |       |          |       |
| 01250    | 01253 | 01264 | 01275    | 01311 |
| 01412    | 01421 | 01424 | 01433    | 01451 |
| 01537    | 01552 | 01576 | 01601    | 01611 |
| 01657    | 01662 | 01670 | 01677    | 01713 |
| 02004    | 02021 | 02024 | 02040    | 02064 |
| 02131    | 02143 | 02145 | 02154    | 02256 |
| 02240    | 02243 | 02245 | 02250    | 02256 |
| 02300    | 02303 | 02306 | 02311    | 02317 |
| 02403    | 02405 | 02421 | 02424    | 02443 |
| 02477    | 02502 | 02505 | 02510    | 02515 |

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|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 02572 | 02605 | 02614 | 02620 | 02624 | 02632 | 02655 | 02700 | 02743 | 02750 |
| 03027 | 03034 | 03072 | 03077 | 03123 | 03133 | 03140 | 03147 | 03153 | 03177 |
| 03214 | 03222 | 03231 | 03253 | 03260 | 03270 | 03275 | 03311 | 03331 | 03337 |
| 03350 | 03354 | 03412 | 03436 | 03441 | 03473 | 03535 | 03541 | 03605 | 03611 |
| 03626 | 02633 | 03641 | 03672 | 03676 | 03702 | 03705 | 03713 | 03731 | 03744 |
| 04032 | 04041 | 04044 | 04047 | 04105 | 04129 | 04133 | 04140 | 04151 | 04160 |
| 04232 | 04236 | 04262 | 04270 | 04276 | 04305 | 04311 | 04323 | 04332 | 04352 |
| 04367 | 04373 | 04410 | 04415 | 04452 | 04461 | 04515 | 04523 | 04526 | 04531 |
| 04537 | 04542 | 04545 | 04550 | 04553 | 04585 | 04575 | 04602 | 04606 | 04613 |
| 04623 | 04626 | 04640 | 04644 | 04646 | 04651 | 04654 | 04657 | 04662 | 04664 |
| 04673 | 04676 | 04701 | 04704 | 04707 |       |       |       |       |       |
| 01742 | 02717 | 02717 | 02760 | 02761 | 02771 | 03020 | 03044 | 03045 | 03050 |
| 02521 | 02734 | 02760 | 03110 | 03113 | 03144 | 03265 |       |       |       |
| 03062 | 03107 | 03110 |       |       |       |       |       |       |       |
| 04530 | 04533 |       |       |       |       |       |       |       |       |
| 03205 | 04267 |       |       |       |       |       |       |       |       |
| 04707 |       |       |       |       |       |       |       |       |       |
| 02337 | 02341 | 02341 | 02342 | 02346 | 02346 | 02347 | 02347 |       |       |
| 03534 | 02410 | 02464 |       |       |       |       |       |       |       |
| 03471 |       |       |       |       |       |       |       |       |       |
| 01322 | 01326 | 01333 | 01337 | 01553 | 02173 | 02175 | 02211 | 02215 | 02223 |
| 03063 | 03232 | 03237 | 03244 | 03716 | 03771 | 04204 | 04333 | 04340 | 04345 |
| 02356 | 02765 | 02765 | 03051 | 03051 | 03142 | 03143 | 03262 | 03263 |       |
| 02555 |       |       |       |       |       |       |       |       |       |

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 P02152 6600034. 02144  
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 P02241 6600037. 02227  
 P02404 6600040. 02375  
 P02425 6600041. 02417  
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 P02452 6600043. 02444  
 P02472 6600044. 02452  
 P02511 6600045. 02503  
 P02573 6600046. 02523  
 P02701 6600047. 02653  
 P03215 6600050. 03204  
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 P03332 6600052. 03307  
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 P03462 6600055. 03631  
 P03765 6600056. 03727  
 P04033 6600057. 03775  
 P04045 6600060. 04037  
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 P04333 6600065. 04321  
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 P04516 6600067. 04457  
 P04554 6600070. 04546  
 P04576 6600071. 04563  
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 P04641 6600074. 04624  
 P04655 6600075. 04647  
 P04663 6600076. 04655  
 P04677 6600077. 04671  
 P04705 6601100. 04677  
 C000000 MDT 02660  
 P00176 MHR 02210  
 P04756 MHR 02210  
 C00416 MHA 01623  
 C00550 MLC 02664  
 P04757 I 02665  
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 01543 01546 01715 01267 03255  
 01763 02006 02011 02015 03254  
 02066 02074 02102 02116 03255  
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 03414 03414 03375 03375

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| P04760 IAS       | 03416    | 03432 | 03441    | 03442 |
| C00310 IASM      | 03536    | 03555 | 03560    | 03574 |
| P04761 IBEGIN    | 04567    | 04571 | 04572    | 04583 |
| P04762 IBLANK    | 02174    | 02176 | 02203    | 02203 |
| P04763 ICMD      | 01426    | 01435 | 01453    | 01514 |
| C001452 ICNTRY   | 02006    | 02026 | 02041    | 02041 |
| C00454 ICOUNT    | 02576    | 03173 | 03210    | 04272 |
| C00000 ICUMNC    | 02616    | 03733 | 04001    | 04051 |
| P04764 ICUMTIME  | 02774    | 03130 | 03203    | 03554 |
| C00001 IDENTNO   | 01257    | 01260 | 03272    | 04433 |
| P00014 IDES      | 03151    | 03216 | 04210    | 04271 |
| C00004 IDUM      | 03125    | 03636 | 04326    | 04470 |
| P04765 IDUMY     | 03156    | 04177 | 04223    | 04441 |
| P04766 IECM      | 01430    | 01443 | 01461    | 01516 |
| P04767 IEND      | 02016    | 02035 | 02050    | 01531 |
| P03446 IF00001.  |          |       |          | 01547 |
| P04247 IF00002.  |          |       |          | 01710 |
| P04315 IF00003.  |          |       |          | 01725 |
| P04770 IFRAC     | 03621    | 03750 | 03765    | 04067 |
| C00000 IFUNC     | 02137    | 02137 | 02161    | 02161 |
| X00034 IGETHCB   | 03705    |       |          | 02611 |
| C00000 INDAT     | 02246    |       |          | 02611 |
| C00152 INGBDFLT  | 01577    | 01606 | 01606    | 02611 |
| C00144 INTYP     |          |       |          | 02611 |
| P00015 INX       | 03277    | 03721 | 03724    | 04257 |
| P04771 INXX      | 03156    | 03300 | 04207    | 04257 |
| P04772 IN        | 02735    | 02740 | 02766    | 03005 |
| C00550 IMIRV     | 03201    | 03216 | 03246    | 03302 |
| C00007 INCOMM    | 03165    | 03166 |          |       |
| C01604 IND       | 02672    | 02774 | 02775    | 03464 |
| C00002 INDATE    |          |       |          | 03542 |
| C00003 INDESIG   | 01372    | 01406 |          | 03545 |
| P04773 INDEXT    | 02776    | 03546 | 03 34    | 04002 |
| C00144 INDFUNC   | 02107    | 02107 | 02 17    | 04053 |
| C00003 INFORM    | 02224    | 02225 | 02235    | 02117 |
| C00000 INHQB     | 01373    | 01373 | 01407    | 02235 |
| C00000 INIDENT   |          |       |          | 01407 |
| X00012 INITAPE   | 02213    |       |          |       |
| C00006 INLENGTH  |          |       |          |       |
| C00001 INRUNNO   |          |       |          |       |
| C00004 INSECR    | 04227    |       |          |       |
| P00206 INSECTOR  |          |       |          |       |
| C00005 INTIME    |          |       |          |       |
| P01230 INTERFACE | 01230    | 03233 | 03240    | 03637 |
| P04774 INUM      | 03227    |       |          | 03643 |
| P04775 IOFFSYS   | 02622    |       |          | 03650 |
| P04776 IOP       | 03120    | 03164 | 03171    | 04234 |
|                  |          |       |          | 04237 |
|                  |          |       |          | 04423 |
|                  |          |       |          | 04457 |
|                  |          |       |          | 04334 |
|                  |          |       |          | 04341 |

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| P04777 | IOPT     | 04556    |       |       |          |       |
| P04171 | IOPTS    | 04553    |       |       |          |       |
| P05000 | IPASORT  | 01326    | 01337 |       |          |       |
| P05001 | IPARI    | 04075    |       |       |          |       |
| C00310 | IPSTYP   | 04505    |       |       |          |       |
| P05002 | IPNETYP  | 02626    | 03757 | 04076 | 04145    | 04445 |
| P05003 | IPLS     |          |       |       |          |       |
| C00000 | IPLTYP   | 01753    | 01753 | 02712 |          |       |
| X00033 | IPROB    |          |       |       |          |       |
| P05004 | IPROCA   |          |       |       |          |       |
| P05005 | IPROC8   |          |       |       |          |       |
| P05006 | IPROCS   |          |       |       |          |       |
| C00000 | IPRT     | 02414    | 02414 |       |          |       |
| P05007 | IPTP     |          |       |       |          |       |
| P05010 | IREPTIME |          |       |       |          |       |
| P05011 | IREG     | 04015    | 04066 |       |          |       |
| P05012 | IREGB    | 04213    | 04334 |       |          |       |
| P05013 | ISC      | 03613    | 03665 |       |          |       |
| C00002 | ISIDE    |          |       |       |          |       |
| P00012 | ISORTIE  |          |       |       |          |       |
| C00000 | ISOUTH   |          |       |       |          |       |
| P05014 | ISIMH    |          |       |       |          |       |
| P05015 | ISVORTIE |          |       |       |          |       |
| P05016 | ISVPLNTP |          |       |       |          |       |
| P05017 | ISVUNIT  |          |       |       |          |       |
| C00000 | ITAB     |          |       |       |          |       |
| P05020 | ITASK    |          |       |       |          |       |
| P05021 | ITEMP    |          |       |       |          |       |
| P05022 | ITESTRES |          |       |       |          |       |
| C00070 | ITGTG    |          |       |       |          |       |
| P00177 | ITIMEREF |          |       |       |          |       |
| X00027 | ITLE     |          |       |       |          |       |
| C00000 | ITP      |          |       |       |          |       |
| P00011 | IUNIT    |          |       |       |          |       |
| C01106 | IWH      |          |       |       |          |       |
| C00050 | IWHD1    |          |       |       |          |       |
| C00170 | IWHD2    |          |       |       |          |       |
| C00006 | IWPNG    |          |       |       |          |       |
| P05023 | IPNSYS   |          |       |       |          |       |
| P05024 | IPNTYPE  |          |       |       |          |       |
| P05025 | IMSR     |          |       |       |          |       |
| P05026 | IYEL0    |          |       |       |          |       |
| P00200 | IZERO    |          |       |       |          |       |
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| P01756 | .100002  |          |       |       |          |       |
| P02046 | .100003  |          |       |       |          |       |
| P02047 | .100004  |          |       |       |          |       |
| P02345 | .100005  |          |       |       |          |       |
| P02347 | .100006  |          |       |       |          |       |
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|        |          | 03630    | 03756 | 04024 | 04075    |       |
|        |          | 03155    | 03277 | 04371 | 04443    |       |
|        |          | 02607    | 02610 | 02621 | 02625    |       |
|        |          | 04507    | 03744 | 04012 | 04063    |       |
|        |          | 03674    | 01721 | 01740 | 01740    |       |
|        |          | 03625    | 03671 | 03675 | 03701    |       |
|        |          | 03054    | 04114 | 04173 |          |       |
|        |          | 03161    | 03301 | 04377 | 04516    |       |
|        |          | 03006    | 03556 | 04106 |          |       |
|        |          | 01625    | 01642 | 01642 |          |       |
|        |          | 03700    | 03745 | 04013 | 04064    |       |
|        |          | 04122    | 04146 | 04166 |          |       |
|        |          | 03643    | 03650 | 03655 | 03747    |       |
|        |          | 03126    | 03233 | 03240 | 03245    |       |
|        |          | 03005    | 03555 | 03567 | 03577    |       |
|        |          | 02520    | 02733 | 02737 | 02752    |       |
|        |          | 03101    | 03105 | 03345 | 03356    |       |
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|        |          | 03127    | 03250 | 03567 | 03754    |       |
|        |          | 02374    | 02400 | 02401 | 02406    |       |
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|        |          | 01527    | 01527 | 01544 |          |       |
|        |          | 04147    | 04167 |       |          |       |
|        |          | 03540    | 04261 |       |          |       |
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|        |          | 02517    | 02732 | 02736 | 02745    |       |
|        |          | 03074    | 03102 | 03341 | 03352    |       |
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|        |          | 03614    | 03710 | 03714 | 04364    |       |
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|        |          | 03774    | 04025 | 04103 |          |       |
|        |          | 03615    | 03620 | 03707 | 03715    |       |
|        |          | 03704    | 03746 | 04014 | 04065    |       |
|        |          | 03620    | 03751 | 04017 | 04070    |       |
|        |          | 04431    | 04434 | 04437 | 04442    |       |
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| P02576 | 100008 | 02574 |
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| P02716 | 100012 | 02714 |
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| P03172 | 100014 | 03167 |
| P03236 | 100015 | 03234 |
| P03237 | 100016 | 03235 |
| P03243 | 100017 | 03241 |
| P03244 | 100018 | 03242 |
| P03361 | 100019 | 03360 |
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| P03370 | 100021 | 03367 |
| P03371 | 100022 | 03367 |
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| P03771 | 100029 | 03770 |
| P03773 | 100030 | 03767 |
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| P04340 | 100032 | 04336 |
| P04344 | 100033 | 04342 |
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| P01474 | 13     | 01473 |
| P01500 | 15     | 01473 |
| P03656 | 154    | 03646 |
| P02417 | 160    | 02415 |
| P01425 | 160    | 01477 |
| P01513 | 17     | 01566 |
| P01563 | 18     | 01562 |
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| P01705 | 20     | 01762 |
| P01353 | 200    | 01351 |
| P02127 | 2020   | 02111 |
| P04035 | 203    | 04034 |
| P04154 | 205    | 04153 |
| P02112 | 2040   | 02110 |
| P04455 | 207    | 04454 |
| P01967 | 21     | 01962 |
| P04616 | 218    | 04615 |
| P04624 | 219    | 04636 |
| P04037 | 260    | 04036 |
| P04045 | 261    | 04036 |
| P02173 | 27     | 02172 |
| P02175 | 28     | 02172 |
| P02177 | 29     | 02174 |
| P02514 | 300    | 03014 |
|        |        | 03305 |

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| P03013 .3011 | 02730 |             |
| P03015 .3020 | 03014 |             |
| P03041 .3021 | 03037 |             |
| P03044 .3022 | 03043 |             |
| P03047 .3023 | 03040 | 03040       |
| P03051 .3024 | 03046 |             |
| P03055 .3025 | 03042 | 03053       |
| P03104 .3026 | 03102 |             |
| P03107 .3027 | 03106 |             |
| P03112 .3028 | 03105 |             |
| P03174 .3030 | 03113 |             |
| P03162 .3031 | 03160 |             |
| P03114 .3033 | 03103 | 03103       |
| P03116 .3034 | 03111 |             |
| P03246 .3035 | 03236 | 03243       |
| P02604 .310  | 02602 |             |
| P01763 .31   | 01755 |             |
| P02636 .311  | 02635 |             |
| P02640 .312  | 02715 |             |
| P02722 .32   | 02706 |             |
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| P01776 .41   | 02641 |             |
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| P02352 .423  |       |             |
| P02411 .424  |       |             |
| P02054 .43   | 02046 |             |
| P02472 .432  | 02416 |             |
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| P02701 .5010 |       |             |
| P02731 .501  | 02730 |             |
| P02727 .5011 | 02721 |             |
| P03454 .509  | 03452 |             |
| P03474 .510  | 03453 |             |
| P03502 .511  | 03500 |             |
| P03306 .600  | 02642 |             |
| P03334 .605  | 03333 |             |
| P02227 .620  |       |             |
| P02244 .640  | 02226 |             |
| P03347 .650  | 02647 |             |
| P03375 .651  | 03370 |             |
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| P03402 .660  | 03374 |             |
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| P03517 .672  | 03513 |             |
| P03514 .673  | 03512 |             |

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| P03604 | .6912    | P03575 |
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| P03723 | .693     | P03717 |
| P03725 | .694     | P03722 |
| P03563 | .700     | P03501 |
| P01756 | .7       |        |
| P04111 | .705     | P03564 |
| P04115 | .710     |        |
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| P04130 | .712     |        |
| P04106 | .7310    |        |
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| P04516 | .7312    |        |
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| P04224 | .774     | P04221 |
| P04401 | .775     | P04377 |
| P04251 | .784     |        |
| P04304 | .785     |        |
| P04355 | .7855    | P04344 |
| P04317 | .7856    | P04346 |
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| P04521 | .800     |        |
| P04405 | .810     | P02603 |
| P01320 | .8695    | P03301 |
| P01326 | .8696    | P01323 |
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| P01331 | .8699    |        |
| P01337 | .8700    | P01334 |
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| P04604 | .917     |        |
| P04556 | .918     |        |
| P04642 | .9916    |        |
| P04647 | .995     |        |
| P04716 | .ERASER. |        |
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| P00402 | ..19     | 01700 |             |
| P00335 | ..2      | 01615 |             |
| P00455 | ..2010   | 02072 |             |
| P00471 | ..2030   | 02132 |             |
| P00436 | ..2040   | 02062 |             |
| P00755 | ..204    | 04050 |             |
| P00463 | ..2050   | 02115 |             |
| P01042 | ..206    | 04161 |             |
| P00474 | ..2070   | 02147 |             |
| P00507 | ..2080   | 02155 |             |
| P01131 | ..208    | 04462 |             |
| P00240 | ..21     | 01356 |             |
| P00263 | ..22     | 01401 |             |
| P01176 | ..220    | 04627 |             |
| P00275 | ..23     | 01422 |             |
| P00304 | ..24     | 01510 |             |
| P00326 | ..25     | 01605 |             |
| P00343 | ..26     | 01633 |             |
| P00751 | ..262    | 04042 |             |
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| P00517 | ..30     | 02202 |             |
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| P01217 | ..7777    | 04674 |
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| P01507 | ..850     | 04660 |
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| P03033 | ..Z00007. | 03032 |
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| P03124 | ..Z00012. | 03121 |
| P03134 | ..Z00013. | 03131 |
| P03141 | ..Z00014. | 03136 |
| P03254 | ..Z00015. | 03251 |
| P03261 | ..Z00016. | 03256 |
| P03276 | ..Z00017. | 03273 |
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| P05030 | JDESIG    | 02052 |
| P05031 | JFAC      | 03207 |
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| C00121 | JPLTYP    | 02075 |
| C00264 | JTP       | 02012 |
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| P05032 | JTP1      | 03447 |
| P00003 | JHPYS     | 03506 |
| C00144 | JYIELD    | 0176  |
| P05033 | K         | 02362 |
| P05034 | KCEP      | 01466 |
|        |           | 02634 |



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| P05071  | LREG     | 02545 |
| C00002  | LSIDE    | 02527 |
| P05072  | LSORTIE  | 02534 |
| P05073  | LTOT     | 02553 |
| P05074  | LTYPE    | 02543 |
| P05075  | LVEHID   | 02537 |
| C00000  | MASK     |       |
| C00000  | MASKO    |       |
| C00005  | MN.      | 02563 |
| C00003  | MLOW     | 02561 |
| C00000  | MODE     | 03157 |
| C00000  | MYIDENT  | 02211 |
| C00000  | NADECOYS |       |
| C00023  | NALERT   |       |
| C00240  | NASM     |       |
| C00016  | NASMTYPE |       |
| C00010  | NENDRY   |       |
| C00022  | NCLASS   |       |
| C00360  | NCM      | 02644 |
| P05076  | NCHD     | 02612 |
| P05077  | NCMFLAG  | 02645 |
| C00021  | NCOMPLEX |       |
| C00004  | NCORR    |       |
| C00025  | NCORTYPE | 02055 |
| C00241  | NDBMB    |       |
| C00430  | NDECOYS  | 01764 |
| C000120 | NDMSS    |       |
| C00005  | NDPEN    |       |
| C00013  | NDGROUP  |       |
| P05100  | NNICP    | 04240 |
| X00020  | NGBLANK  | 02404 |
| C00000  | NGBORH1  | 02270 |
| C00120  | NGBORH2  |       |
| X00022  | NOFFSYS  | 02617 |
| X00035  | NOP      | 04231 |
| C00000  | NCPRINT  | 00176 |
| C00025  | NCPSHOT  | 04201 |
| P05101  | NCPWDS   | 03000 |
| P05102  | NCPWTSK  | 03002 |
| P00214  | NPAAB    | 04154 |
| C00015  | NPAYLOAD |       |
| X00021  | NPLNETYP | 02604 |
| P000213 | NPSTRIKE | 03725 |
| C00009  | NRECOVER |       |
| C00007  | NREF     |       |
| C00011  | NREG     |       |
| C00003  | NRTPT    |       |
| C00020  | NT       | 01571 |
| C00020  | TANKBAS  |       |
| C00154  | NTGTG    |       |
| C00024  | NTGTS    | 03146 |
| X00026  | NTIME    |       |
| C00014  | NTOTBASE |       |
| C00012  | NTYPE    |       |

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| X00011 NJMGET    | 02104  | 04235 | 02332 | 02333 | 02440 | 02440 | 02466 | 02466 | 03456 | 04521 |
| X00120 NVHC      | 00176  | 02312 | 02301 | 02304 | 02412 | 02412 | 02466 | 02466 | 03456 | 04521 |
| X00017 NMDTYPE   | 00176  | 02276 | 02301 | 02304 | 02412 | 02412 | 02466 | 02466 | 03456 | 04521 |
| X00226 NMPN      | 001502 | 02276 | 02301 | 02304 | 02412 | 02412 | 02466 | 02466 | 03456 | 04521 |
| X00153 NMPNG     | 02671  | 03430 | 03622 | 03623 | 03666 | 03666 | 03666 | 03666 | 03456 | 04521 |
| X01320 P4        | 03624  | 02522 | 02652 | 02652 | 03306 | 03306 | 03407 | 03407 | 03456 | 04521 |
| P05103 PABORT    | 04521  | 03664 | 03673 | 03673 | 03664 | 03664 | 03673 | 03673 | 03456 | 04521 |
| X00017 PLANTAPE  | 03660  | 02472 | 03727 | 04527 | 04540 | 04540 | 04540 | 04540 | 03456 | 04521 |
| P05104 PLS       | 03670  | 02472 | 03727 | 04527 | 04540 | 04540 | 04540 | 04540 | 03456 | 04521 |
| X00036 PRNTOFFS  | 03670  | 02472 | 03727 | 04527 | 04540 | 04540 | 04540 | 04540 | 03456 | 04521 |
| P00203 PTAPE     | 02350  | 02360 | 02373 | 02373 | 02373 | 02373 | 02373 | 02373 | 03456 | 04521 |
| P05105 PTP       | 00000  | 01231 | 02373 | 02373 | 02373 | 02373 | 02373 | 02373 | 03456 | 04521 |
| X00004 Q1010100  | 00000  | 01231 | 02373 | 02373 | 02373 | 02373 | 02373 | 02373 | 03456 | 04521 |
| X00005 Q800ICT.  | 00000  | 01231 | 02373 | 02373 | 02373 | 02373 | 02373 | 02373 | 03456 | 04521 |
| X00001 Q80ENTRY  | 00000  | 01231 | 02373 | 02373 | 02373 | 02373 | 02373 | 02373 | 03456 | 04521 |
| X00037 Q80TFEOP  | 04601  | 04706 | 02260 | 02266 | 02274 | 02274 | 02302 | 02310 | 02315 | 02324 |
| X00003 Q845TOPS  | 02242  | 04706 | 02260 | 02266 | 02274 | 02274 | 02302 | 02310 | 02315 | 02324 |
| X00047 GNSINGL.  | 04712  | 02252 | 02260 | 02266 | 02274 | 02274 | 02302 | 02310 | 02315 | 02324 |
| X00014 RDARRAY   | 02244  | 02252 | 02260 | 02266 | 02274 | 02274 | 02302 | 02310 | 02315 | 02324 |
| C00000 REL       | 02320  | 02252 | 02260 | 02266 | 02274 | 02274 | 02302 | 02310 | 02315 | 02324 |
| X00041 REM.      | 02473  | 02252 | 02260 | 02266 | 02274 | 02274 | 02302 | 02310 | 02315 | 02324 |
| X00013 SETREAD   | 02221  | 02252 | 02260 | 02266 | 02274 | 02274 | 02302 | 02310 | 02315 | 02324 |
| X00015 SKIP      | 02247  | 02252 | 02260 | 02266 | 02274 | 02274 | 02302 | 02310 | 02315 | 02324 |
| P00204 STAPE     | 00205  | 02252 | 02260 | 02266 | 02274 | 02274 | 02302 | 02310 | 02315 | 02324 |
| X00045 STM.      | 01247  | 02252 | 02260 | 02266 | 02274 | 02274 | 02302 | 02310 | 02315 | 02324 |
|                  | 01676  | 01732 | 01767 | 02023 | 01450 | 01450 | 01506 | 01536 | 01603 | 01661 |
|                  | 02426  | 02445 | 02453 | 02504 | 03730 | 03770 | 04040 | 04046 | 04137 | 04414 |
|                  | 04460  | 04547 | 04617 | 04625 | 04650 | 04650 | 04672 | 04700 | 04700 | 04700 |
|                  | 03053  | 04113 | 04115 | 04115 | 04115 | 04115 | 04115 | 04115 | 04115 | 04115 |
| P05106 STIME     | 01237  | 03400 | 03400 | 03400 | 03400 | 03400 | 03400 | 03400 | 03400 | 03400 |
| X00007 STORAGE   | 01674  | 02725 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 |
| P05107 SVDELBOV  | 01673  | 02725 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 |
| P05110 SVDELWIS  | 02522  | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 |
| P05111 /NMIS     | 02327  | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 | 02733 |
| X00016 TERMATAPE | 02771  | 02772 | 03266 | 03266 | 03271 | 03271 | 03532 | 03533 | 03533 | 03533 |
| C00000 TGTFILE   | 02262  | 02772 | 03266 | 03266 | 03271 | 03271 | 03532 | 03533 | 03533 | 03533 |
| X00002 TEND.     | 02262  | 02772 | 03266 | 03266 | 03271 | 03271 | 03532 | 03533 | 03533 | 03533 |
|                  | 01252  | 01274 | 01310 | 01357 | 01374 | 01374 | 01411 | 01423 | 01445 | 01511 |
|                  | 01551  | 01600 | 01610 | 01626 | 01644 | 01644 | 01650 | 01657 | 01701 | 01746 |
|                  | 02020  | 02037 | 02063 | 02100 | 02122 | 02122 | 02142 | 02150 | 02167 | 02205 |
|                  | 02423  | 02442 | 02450 | 02470 | 02507 | 02507 | 02571 | 02577 | 03213 | 03230 |
|                  | 03472  | 03640 | 03763 | 04031 | 04043 | 04043 | 04104 | 04150 | 04171 | 04275 |
|                  | 04514  | 04552 | 04574 | 04612 | 04622 | 04622 | 04637 | 04653 | 04661 | 04675 |
|                  | 01243  | 02511 | 02514 | 04663 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 |
| X00010 TIMEWE    | 01436  | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 |
| P01443 TS00004.  | 01436  | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 |
| P01461 TS00005.  | 01436  | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 | 01436 |
| P01531 TS00007.  | 01524  | 01524 | 01524 | 01524 | 01524 | 01524 | 01524 | 01524 | 01524 | 01524 |
| P01547 TS00010.  | 01542  | 01542 | 01542 | 01542 | 01542 | 01542 | 01542 | 01542 | 01542 | 01542 |
| P01725 TS00012.  | 01716  | 01716 | 01716 | 01716 | 01716 | 01716 | 01716 | 01716 | 01716 | 01716 |
| P01744 TS00013.  | 01736  | 01736 | 01736 | 01736 | 01736 | 01736 | 01736 | 01736 | 01736 | 01736 |
| P01757 TS00014.  | 01751  | 01751 | 01751 | 01751 | 01751 | 01751 | 01751 | 01751 | 01751 | 01751 |
| P02016 TS00015.  | 02007  | 02007 | 02007 | 02007 | 02007 | 02007 | 02007 | 02007 | 02007 | 02007 |
| P02035 TS00016.  | 02027  | 02027 | 02027 | 02027 | 02027 | 02027 | 02027 | 02027 | 02027 | 02027 |
| P02050 TS00017.  | 02042  | 02042 | 02042 | 02042 | 02042 | 02042 | 02042 | 02042 | 02042 | 02042 |



## 5.4TS INTRFACE

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|        |          |       |  |  |  |  |  |  |  |
|--------|----------|-------|--|--|--|--|--|--|--|
| P02353 | TS00023. | P2334 |  |  |  |  |  |  |  |
| P02412 | TS00024. | P2354 |  |  |  |  |  |  |  |
| P02440 | TS00025. | P2432 |  |  |  |  |  |  |  |
| P02466 | TS00026. | P2457 |  |  |  |  |  |  |  |
| P02702 | TS00027. | P2651 |  |  |  |  |  |  |  |
| P02723 | TS00030. | P2710 |  |  |  |  |  |  |  |
| P03011 | TS00031. | P2735 |  |  |  |  |  |  |  |
| P03056 | TS00032. | P3021 |  |  |  |  |  |  |  |
| P03303 | TS00033. | P3064 |  |  |  |  |  |  |  |
| P03326 | TS00034. | P3313 |  |  |  |  |  |  |  |
| P03376 | TS00035. | P3363 |  |  |  |  |  |  |  |
| P03433 | TS00036. | P3414 |  |  |  |  |  |  |  |
| P03475 | TS00037. | P3441 |  |  |  |  |  |  |  |
| P03561 | TS00040. | P3503 |  |  |  |  |  |  |  |
| P04402 | TS00041. | P4205 |  |  |  |  |  |  |  |
| X06044 | TS0.     | P2524 |  |  |  |  |  |  |  |
| X06042 | TS0.     | P1263 |  |  |  |  |  |  |  |
|        |          | P4564 |  |  |  |  |  |  |  |
| C02070 | TSK      | P2674 |  |  |  |  |  |  |  |
| C01034 | TSN      | P2667 |  |  |  |  |  |  |  |
| C06702 | TZI      | P2666 |  |  |  |  |  |  |  |
| X00006 | VINTFAC  | P1235 |  |  |  |  |  |  |  |
| P01257 | TS00001. | P1261 |  |  |  |  |  |  |  |
| P01270 | TS00002. | P1273 |  |  |  |  |  |  |  |
| P01304 | TS00003. | P1307 |  |  |  |  |  |  |  |
| P01437 | TS00004. | P1444 |  |  |  |  |  |  |  |
| P01455 | TS00005. | P1462 |  |  |  |  |  |  |  |
| P01467 | TS00006. | P1475 |  |  |  |  |  |  |  |
| P01525 | TS00007. | P1532 |  |  |  |  |  |  |  |
| P01543 | TS00010. | P1550 |  |  |  |  |  |  |  |
| P01555 | TS00011. | P1564 |  |  |  |  |  |  |  |
| P01717 | TS00012. | P1726 |  |  |  |  |  |  |  |
| P01737 | TS00013. | P1745 |  |  |  |  |  |  |  |
| P01752 | TS00014. | P1760 |  |  |  |  |  |  |  |
| P02010 | TS00015. | P2017 |  |  |  |  |  |  |  |
| P02030 | TS00016. | P2036 |  |  |  |  |  |  |  |
| P02043 | TS00017. | P2051 |  |  |  |  |  |  |  |
| P02067 | TS00020. | P2126 |  |  |  |  |  |  |  |
| P02135 | TS00021. | P2141 |  |  |  |  |  |  |  |
| P02160 | TS00022. | P2166 |  |  |  |  |  |  |  |
| P02337 | TS00023. | P2352 |  |  |  |  |  |  |  |
| P02355 | TS00024. | P2413 |  |  |  |  |  |  |  |
| P02433 | TS00025. | P2441 |  |  |  |  |  |  |  |
| P02460 | TS00026. | P2467 |  |  |  |  |  |  |  |
| P02452 | TS00027. | P2703 |  |  |  |  |  |  |  |
| P02711 | TS00030. | P2724 |  |  |  |  |  |  |  |
| P02736 | TS00031. | P3012 |  |  |  |  |  |  |  |
| P03022 | TS00032. | P3057 |  |  |  |  |  |  |  |
| P03065 | TS00033. | P3304 |  |  |  |  |  |  |  |
| P03314 | TS00034. | P3327 |  |  |  |  |  |  |  |
| P03364 | TS00035. | P3377 |  |  |  |  |  |  |  |
| P03415 | TS00036. | P3434 |  |  |  |  |  |  |  |
| P03442 | TS00037. | P3476 |  |  |  |  |  |  |  |
| P03504 | TS00040. | P3562 |  |  |  |  |  |  |  |

5.4TS INTERFACE

P04206 MSG0041.  
P04570 MSG0042.  
P04632 MSG0043.  
P05112 WSR  
C00002 YEAR  
C00000 YIELD  
X00032 YLDFRAC  
01250 SYMBOLS

04403  
045  
04635  
03663  
03737  
02276  
03616

03664 03703  
04005 04056  
02361 02361

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```

SUBROUTINE FINDTIME
  CSUBR      FINDTIME 20 OCT70 *****
  CUSE      DATE      IMART1 *****
              COMMON/DATE/TGTIME,DAMCHING,YEAR *****
              TYPE INTEGER DAMCHING,YEAR *****
              -DATE *****
              GANETIME IMART1 *****
              COMMON/GANETIME/KDAY,KMON,KYEAR *****
              GANETIME *****
              IDAY=KDAY *****
              IMON=KMON *****
              IYEAR=KYEAR *****
              HOUR = HOUR = TGTIME *****
              MIN = (TGTIME-HOUR)*60*0.5 *****
              IF(MIN.EQ.60)1,2 *****
              1 MIN = 0 *****
              2 HOUR = HOUR+1 *****
              3 IF(HOUR.GE.24)3,5 *****
              4 HOUR = HOUR-24 *****
              5 IDAY = IDAY+1 *****
              GO TO 2 *****
              5 IF(IDAY.GT.31)6,8 *****
              6 IDAY = IDAY-31 *****
              7 IMON = IMON+1 *****
              GO TO 5 *****
              8 IF(IMON.GT.12)9,11 *****
              9 IMON = IMON-12 *****
              10 IYEAR = IYEAR+1 *****
              GO TO 8 *****
              11 IF(IYEAR.GT.99)12,4 *****
              12 PRINT 13 *****
              13 FORMAT(33H01LEGAL DATE * * YEAR EXCEEDS 99) *****
              4 IYEAR = 99 *****
              5 IDATE = IMON*100+MIN*10000+IHOUR*1000000+IDAY *****
              DAMCHING=KNOBLANK(IDATE) *****
              YEAR = KNOBLANK(IYEAR) *****
              RETURN *****
              END *****
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32000

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IDENT FINDTIME

PROGRAM LENGTH 00144  
ENTRY POINTS 00013  
BLOCK NAMES 00003  
00003

EXTERNAL SYMBOLS  
DATE 01010100  
GAMETIME  
THEND.  
Q89DICT.  
KNORBLANK  
STH.

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5.4TS FINDTIME

P00124 BEGIN.  
P00003 CRPMT.  
P00001 DAHOMING  
P00001 DICT.  
P00125 ENDING.  
P00000 EXIT.  
P00013 FINDTIME  
P00003 FCRNAT.  
P00103 G000000.  
P00135 HOUR  
P00136 IDATE  
P00137 IDAY  
P00140 IMOUR  
P00141 IMON  
P00124 INITIAL.  
P00142 IYEAR  
P00042 .1  
P00072 .11  
P00075 .12  
P00045 .2  
P00050 .3  
P00105 .4  
P00054 .5  
P00057 .6  
P00063 .8  
P00066 .9  
P00126 .ERASER.  
P00003 .13  
P00000 KDAY  
P00001 KMON  
P00004 KNCBLANK  
P00002 KYEAR  
P00143 MIN  
P00001 G1010100  
P00003 G000000.  
P00005 STM.  
P00000 TGTTIME  
P00002 THEND.  
P00002 YEAR  
G00047 SYMBOLS

00117  
00077  
00123  
  
00035  
00116  
00052  
00043  
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00053  
00074  
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00110  
00017  
00021  
00120  
00023  
00043  
00037  
00014  
00025  
00106  
00033  
00034

00102 00115 00121

00053 00054 00057 00060 00112  
00044 00045 00050 00051 00110  
00062 00063 00066 00067 00106  
00071 00072 00104 00122

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```

C SUBR
C USE
      FUNCTION IGETHOB(KDSG,KWPN)
      IGETHOB = 3*AVT1
      BURST = IMART1
      COMMON/BURST/LOESIG(3),INDESIG(3),IMPNG(50),ITGTG(50),
      1 INCBDFLT,NWPN,NTGTG
      BURST = IMPNG*NTGTG
      INHCB = IMART1
      COMMON/INHCB/INHOB(3)
      INHCB = INHOB
      DECODE(8,2,KDSG)ITPART
      2 FORMAT(2X,13,2X)
      FIND TARGET REGION
      DO 3 I=1,3
      3 IF((ITPART.GE.LOESIG(I)).AND.(ITPART.LE.INDESIG(I)))5,3
      3 CONTINUE
      PRINT 4, KDSG
      4 FORMAT(8H,TARGET ,A5,23H IS IN UNDEFINED REGION )
      IGETHOB = INCBDFLT
      RETURN
      C
      5 IS REGION INDEFINITE
      5 IF(INHCB(I).EQ.0)6,7
      6 IGETHOB = IMG
      RETURN
      7 IF(INHCB(I).EQ.1)8,9
      8 IGETHOB = IMA
      RETURN
      9 CONTINUE
      INDEFINITE REGION - IS TGT INPUT AS G
      DECODE(6,30,KDSG)IPART
      30 FORMAT(A2,6X)
      DO 10 I=1,NTGTG
      10 IF(IPART.EQ.ITGTG(I))11,10
      10 CONTINUE
      10 GC TO 20
      11 IGETHOB = IMG
      RETURN
      C
      TGT NOT INPUT AS G - IS WHO TYPE INPUT AS G
      20 DO 21 I=1,IMPNG
      21 IF ( KWPN .EQ. IMPNG(I) ) 22, 21
      21 CONTINUE
      C
      WHO TYPE NOT INPUT AS G - RETURN DEFAULT VALUE
      IGETHOB = INCBDFLT
      RETURN
      22 IGETHOB = IMG
      RETURN
      END

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38000  
39000  
40000

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5.4TS IGETHOB

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

IGETHOB

00220  
00031

BURST  
INNOB

00155  
00003

EXTERNAL SYMBOLS

THEND.  
O88DICT.  
DEC.  
STM.  
ONSINGL.

IDENT

IGETHOB

5.4TS IGETHOB

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|                 |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|
| PO0154 BEGIN.   | 00176 | 00205 | 00211 |       |       |       |       |
| PO0153 CNVRT1.  | 00041 | 00046 | 00114 |       |       |       |       |
| PO0003 CRFMT.   | 00045 | 00071 | 00120 |       |       |       |       |
| X00003 DEC.     | 00036 | 00111 |       |       |       |       |       |
| PO0001 DICT.    | 00033 | 00037 | 00044 | 00063 | 00070 | 00112 | 00190 |
| PO0177 ENDING.  | 00034 | 00073 | 00101 | 00107 | 00133 | 00146 | 00154 |
|                 | 00156 |       |       |       |       |       | 00155 |
| PO0000 EXIT.    | 00203 |       |       |       |       |       | 00156 |
| PO0003 FORMAT.  | 00100 | 00106 | 00132 | 00147 |       |       |       |
| PO0040 FP00001. | 00170 |       |       |       |       |       |       |
| PO0045 FP00002. | 00166 | 00167 |       |       |       |       |       |
| PO0113 FP00003. | 00171 |       |       |       |       |       |       |
| PO0136 FP00004. | 00174 | 00175 |       |       |       |       |       |
| PO0214 GETPL.   | 00161 | 00172 |       |       |       |       |       |
| PO0204 GETPU.   | 00164 | 00210 |       |       |       |       |       |
| PO0045 G600000. | 00035 |       |       |       |       |       |       |
| PO0071 G800001. | 00061 |       |       |       |       |       |       |
| PO0120 G800002. | 00110 |       |       |       |       |       |       |
| PO0215 I        | 00046 | 00050 | 00054 | 00057 | 00074 | 00102 | 00121 |
|                 | 00142 | 00122 |       |       |       |       | 00123 |
| PO0216 IAPART   | 00115 |       |       |       |       |       | 00126 |
| PO0053 IF00001. | 00051 |       |       |       |       |       | 00135 |
| PO0031 IGETHOB  | 00031 |       |       |       |       |       | 00137 |
| CO0152 INCBDFLT | 00071 | 00071 | 00145 |       |       |       |       |
| CO0003 INDESIG  | 00054 | 00055 |       |       |       |       |       |
| CO0000 INHOB    | 00075 | 00075 | 00103 | 00103 |       |       |       |
| PO0154 INITIAL. | 00034 |       |       |       |       |       |       |
| CO0070 ITGT6    | 00123 | 00124 |       |       |       |       |       |
| PO0217 ITPART   | 00042 | 00047 | 00053 |       |       |       |       |
| CO0006 INPAG    | 00140 | 00140 |       |       |       |       |       |
| PO0126 .10      | 00124 |       |       |       |       |       |       |
| PO0132 .11      | 00125 |       |       |       |       |       |       |
| PO0134 .20      | 00131 |       |       |       |       |       |       |
| PO0142 .21      | 00141 |       |       |       |       |       |       |
| PO0147 .22      | 00141 |       |       |       |       |       |       |
| PO0057 .3       | 00052 |       |       |       |       |       |       |
| PO0074 .5       | 00055 | 00056 |       |       |       |       |       |
| PO0100 .6       | 00077 | 00056 |       |       |       |       |       |
| PO0102 .7       | 00076 |       |       |       |       |       |       |
| PO0106 .8       | 00105 |       |       |       |       |       |       |
| PO0110 .9       | 00104 |       |       |       |       |       |       |
| PO0021 ..100000 | 00100 |       |       |       |       |       |       |
| PO0022 ..100001 | 00106 |       |       |       |       |       |       |
| PO0027 ..100002 | 00132 |       |       |       |       |       |       |
| PO0030 ..100003 | 00147 |       |       |       |       |       |       |
| PO0003 ..2      | 00040 |       |       |       |       |       |       |
| PO0023 ..30     | 00113 |       |       |       |       |       |       |
| PO0010 ..4      | 00064 |       |       |       |       |       |       |
| PO0003 K050     | 00040 | 00065 | 00113 |       |       |       |       |
| PO0003 K050     | 00136 |       |       |       |       |       |       |
| CO0000 LDESIG   | 00050 | 00051 |       |       |       |       |       |
| CO0154 NTGT6    | 00127 | 00127 |       |       |       |       |       |
| CO0153 NHPNG    | 00143 | 00143 |       |       |       |       |       |
| PO0172 PF00002. | 00165 |       |       |       |       |       |       |



5.4TS IGETH08

P00176 PF00003.  
X00002 080000.  
X00005 080000.  
X00004 080000.  
X00001 080000.  
P00127 TS00002.  
P00143 TS00003.  
P00151 VALUE.  
P00047 TS00001.  
P00122 TS00002.  
P00136 TS00003.  
00077 SYMBCLS

00173  
00000  
00152  
00062  
00043  
00121  
00135  
00072  
00060  
00130  
00144

00032  
00067  
00116  
00101  
00130  
00144

00107 00133 00146 00150 00202

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C

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1000  
2000  
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6000  
7000

```

FUNCTION IPROB(IA)
  CSUBR      IPROB  18MART1
  IA = 100*(A+.005)
  IF(IA.LE.100)6.8
  6 IA = 99
  8 IPROB=KNORLANK(IA)
  RETURN
END

```

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5.4TS

IPROB

PROGRAM LENGTH  
ENTRY POINTS  
EXTERNAL SYMBOLS

IPROB

00064  
00003

IDENT

IPROB

Q1010100  
QB0010100  
KN0010100

5.ATS

IPROB

P00003 A  
P00026 BEGIN.  
P00001 DICT.  
P00043 ENDING.  
P00000 EXIT.  
P00007 FP00001.  
P00050 GETPL.  
P00050 GETPU.  
P00053 IA  
P00026 INITIAL.  
P00003 IPROB  
P00016 .6  
P00020 .8  
X00003 KNOBLANK  
P00042 PF00002.  
X00001 Q1010100  
X00002 Q80010100  
P00025 VALUE.  
00022 SYMBOLS

Q0007  
Q0042  
Q0005  
Q0006  
Q0047  
Q0040  
Q0033  
Q0036  
Q0013  
Q0006  
Q0003  
Q0014  
Q0015  
Q0020  
Q0037  
Q0012  
Q0000  
Q0023

U0051  
U0021  
U0024  
U0041  
U0054  
U0017

U0055  
U0031  
U0026  
00022

00032  
00027

00027 00030 00030

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CSUBR      FUNCTION (NOBLANK(IN)  
            KNBLANK 20 OCT70  
            IT = IND  
            ENCODE(18,9,IN)IT  
            9 FORMAT(I8)  
            KNBLANK = NOBLANK(IN)  
            END

1000  
30000  
2000  
3000  
4000  
5000  
6000

.....

5.4TS KNOBLANK

PROGRAM LENGTH  
ENTRY POINTS  
EXTERNAL SYMBOLS  
KNOBLANK  
THEND.  
Q00DICT.  
KNOBLANK  
ENC.  
ONSINGL.

00070  
00006

IDENT

KNOBLANK

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5.4TS

KNBLANK

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PC0033 BEGIN.  
 PC0032 CNVRTI.  
 PC0003 CRFMT.  
 PC0001 DICT.  
 X00004 ENC.  
 PC0050 ENDING.  
 PC0000 EXIT.  
 PC0003 FORMAT.  
 PC0012 FPU0001.  
 PC0065 GETEL.  
 PC0055 GETPU.  
 PC0023 GGG0000.  
 PC0066 IN  
 PC0003 IND  
 PC0033 INITIAL.  
 PC0067 IT  
 PC0003 ..9  
 PC0006 KNBLANK  
 X00003 NCBLANK  
 PC0047 PFC0002.  
 X00002 QSDICT.  
 X00005 QNSINGL.  
 X00001 TWEND.  
 PC0030 VALUE.  
 00030 SYMBCLS

00047  
 00020  
 00023  
 00010  
 00015  
 00011  
 00054  
 00045  
 00040  
 00043  
 00014  
 00017  
 00012  
 00011  
 00013  
 00017  
 00006  
 00023  
 00044  
 00000  
 00031  
 00021  
 00026

00056  
 00016  
 00027  
 00046  
 00061  
 00025  
 00020

00062

00024 00036 00037

00022 00033

00027 00034 00035 00035

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```

FUNCTION LAT9T (A)
  CSUBR   LAT9T   9DEC71 *****
  C       LAT9T IS A VARIANT OF LATCV *****
  C       CONVERTS A FLOATING POINT LAT OR LON TO THE FORM *****
  C       DDDMMSS OR DDMMSS FOR PRINTOUT IN A-FORMAT, WHERE *****
  C       DDD = DEGREES, MM = MINUTES, SS= SECONDS AND H=E/W/S/N *****
  C       DESIGNATES WHICH HEMISPHERE *****
  C       TYPE INTEGER SECPIX *****
  CUSE    ISOUTH  20 GC77C *****
  C       COMMON/ISOUTH/ISOUTH *****
  CER:    ISOUTH *****
  C       TYPE REAL LATFLT, LATFLT1, MINFLT, MINFLT1 *****
  C       ISOUTH = 1H *****
  C       IF (A.GT.90.)A=(90.-A)+90. *****
  C       IF (A.LT.-90.)A=(-90.-A)+90. *****
  C       LATFLT = A *****
  C       LHEN = C *****
  C       IF (LATFLT) 2, 7, 7 *****
  2       LATFLT = -LATFLT *****
  C       ISOUTH = 1HS *****
  7       LATFLT1 = LATFLT * LATFLT *****
  C       MINFLT1 = MINFLT * MINFLT *****
  C       SECPIX = (MINFLT - MINFLT1)*60. + 0.5 *****
  C       IF (SECPIX.EQ.60) 3,4 *****
  3       SECPIX = C $ MINFLT = MINFLT *1 *****
  4       IF (MINFLT.EQ.60) 5, 6 *****
  5       MINFLT = C $ LATFLT = LATFLT *1 *****
  6       LERESFIX=SECPIX*100+MINFLT*10000*LATFIX+10000000 *****
  C       ENCODE(8,10,LAT9T),LERESFIX *****
  10      FORMAT(18) *****
  12      LAT9T=LAT9T*64+LHEN *****
  1       RETURN *****
  ENTRY  _LON9T *****
  C       IF (A.GT.360.)A=A-360. *****
  C       LATFLT = A *****
  C       LHEN = 1R *****
  C       IF (LATFLT.GT.180.) 11,7 *****
  11      LHEN = 1RE *****
  C       LATFLT = 360. - LATFLT *****
  C       GO TO 7 *****
  C       END *****

```



5.4TS

LATBT

PROGRAM LENGTH  
ENTRY POINTS

BLOCK NAMES

EXTERNAL SYMBOLS

LATBT  
LONBT

ISOUTH

Q1010100

THEND.

Q000ICT.

ENC.

QNSINGL.

IDENT

LATBT

00255

00010

00124

00001

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| EATS            | LATB  |  | 12/17/71 | ED | 0 | PAGE NO. | 3 |
|-----------------|-------|--|----------|----|---|----------|---|
| P00003 A        | G0016 |  |          |    |   |          |   |
| P00157 BEGIN.   | G0217 |  |          |    |   |          |   |
| P00156 CNVRTI.  | G0112 |  |          |    |   |          |   |
| P00003 CRFMT.   | G0115 |  |          |    |   |          |   |
| P00001 DICT.    | G0012 |  |          |    |   |          |   |
| X00004 ENC.     | G0107 |  |          |    |   |          |   |
| P00220 ENDING.  | G0013 |  |          |    |   |          |   |
| P00090 EXIT.    | G0224 |  |          |    |   |          |   |
| P00093 FORMAT.  | G0014 |  |          |    |   |          |   |
| P00016 PPO0001. | G0171 |  |          |    |   |          |   |
| P00322 PPO0002. | G0173 |  |          |    |   |          |   |
| P00024 PPO0003. | G0175 |  |          |    |   |          |   |
| P00025 PPO0004. | G0177 |  |          |    |   |          |   |
| P00031 PPO0005. | G0201 |  |          |    |   |          |   |
| P00033 PPO0006. | G0203 |  |          |    |   |          |   |
| P00034 PPO0007. | G0205 |  |          |    |   |          |   |
| P00130 PPO0010. | G0207 |  |          |    |   |          |   |
| P00133 PPO0011. | G0211 |  |          |    |   |          |   |
| P00135 PPO0012. | G0213 |  |          |    |   |          |   |
| P00136 PPO0013. | G0215 |  |          |    |   |          |   |
| P00235 GETPL.   | G0164 |  |          |    |   |          |   |
| P00225 GETPU.   | G0167 |  |          |    |   |          |   |
| P00115 GPD0000. | G0106 |  |          |    |   |          |   |
| P00157 INITIAL. | G0013 |  |          |    |   |          |   |
| C00000 ISOUTH.  | G0015 |  |          |    |   |          |   |
| P00123 .1       | G0117 |  |          |    |   |          |   |
| P00021 .100001  |       |  |          |    |   |          |   |
| P00025 .100002  |       |  |          |    |   |          |   |
| P00030 .100003  |       |  |          |    |   |          |   |
| P00034 .100004  |       |  |          |    |   |          |   |
| P00133 .100005  |       |  |          |    |   |          |   |
| P00136 .100006  |       |  |          |    |   |          |   |
| P00143 .11      |       |  |          |    |   |          |   |
| P00120 .12      |       |  |          |    |   |          |   |
| P00041 .2       |       |  |          |    |   |          |   |
| P00071 .3       |       |  |          |    |   |          |   |
| P00074 .4       |       |  |          |    |   |          |   |
| P00076 .5       |       |  |          |    |   |          |   |
| P00101 .6       |       |  |          |    |   |          |   |
| P00045 .7       |       |  |          |    |   |          |   |
| P00236 .ERASER. |       |  |          |    |   |          |   |
| P00005 ..10     |       |  |          |    |   |          |   |
| P00003 ..100000 |       |  |          |    |   |          |   |
| P00004 ..100001 |       |  |          |    |   |          |   |
| P00010 LATBT    |       |  |          |    |   |          |   |
| P00251 LATFIX   |       |  |          |    |   |          |   |
| P00153 LATFLT   |       |  |          |    |   |          |   |
| P00152 LATFLTI  |       |  |          |    |   |          |   |
| P00252 LERESFIX |       |  |          |    |   |          |   |
| P00253 LHEN     |       |  |          |    |   |          |   |
| P00124 LONGT    |       |  |          |    |   |          |   |
| P00254 MINFIX   |       |  |          |    |   |          |   |
| P00151 MINFLT   |       |  |          |    |   |          |   |
| P00150 MINFLTI  |       |  |          |    |   |          |   |

P00217 PF00002. 00170  
 X00001 Q1G1G100 00046  
 X00003 Q8G0ICT. 00000  
 X00005 QNSINGL. 00155  
 P00154 SECFIX 00067  
 X00002 THEND. 00113  
 P00147 VALUE. 00111  
 00075 SYMBOLS

00056 00066  
 00011 00125  
 00072 00102  
 00120 00122 00223

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```

      FUNCTION LATS(A)
      CSUBR      LATS      9DEC71 *****
      IF(A.GT.90.)A=(90.-A)+90.
      IF(A.LT.-90.)A=(-90.-A)+90.
      ALAT = A
      LHEM = 1RW
      IF(ALAT)1,2,2
      1 ALAT = -ALAT
      LHEM = 1RS
      2 DEG = LDEG = ALAT
      AMIN = MIN = AMIN=(ALAT=DEG)*60
      LSEC = (AMIN-AMIN)*60*0.5
      IF(LSEC.EQ.60)3,4
      3 LSEC = 0
      MIN = MIN+1
      4 IF(MIN.EQ.60)5,6
      5 MIN = 0
      LDEG = LDEG+1
      6 LAT = LSEC+100*MIN+10000*LDEG
      ENCODE (8,10,LATS) LAT,LHEM
      10 FORMAT (17,F1)
      LATS = NORLANK(LATS)
      RETURN
      ENTRY LONS
      IF(A.GT.360.)A=A-360.
      ALAT = A
      LHEM = 1RW
      IF(ALAT.GT.180.) 11,2
      11 LHEM = 1RE
      ALAT = 360.-ALAT
      GO TO 2
      END

```

1000  
32000  
4000  
3000  
4000  
5000  
6000  
7000  
8000  
9000  
10000  
11000  
12000  
13000  
14000  
15000  
16000  
17000  
18000  
19000  
20000  
21000  
22000  
23000  
24000  
25000  
26000  
27000  
28000  
29000  
30000  
31000

5.4TS

LATS

PROGRAM LENGTH

ENTRY POINTS

LATS

LONS

EXTERNAL SYMBOLS

IDENT

LATS

00246

00007

00117

01010100

THEND.

0800ICT.

080BLANK

ENC.

08SINGL.

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| 5.4TS  | LATS     | 12/17/71 | EO    | PAGE NO. | 3     |
|--------|----------|----------|-------|----------|-------|
| P00003 | A        | 00013    | 00031 | 00126    | 00131 |
| P00235 | ALAT     | 00032    | 00036 | 00126    | 00130 |
| P00236 | AMIN     | 00057    | 00061 | 00134    | 00140 |
| P00237 | AMIN1    | 00051    |       |          |       |
| P00145 | BEGIN.   | 00205    |       |          |       |
| P00144 | CNVRT1.  | 00106    |       |          |       |
| P00003 | CRFMT.   | 00112    |       |          |       |
| P00240 | DEG      | 00047    |       |          |       |
| P00001 | DICT.    | 00011    | 00150 | 00151    |       |
| X00005 | ENC.     | 00103    |       |          |       |
| P00206 | ENDING.  | 00012    | 00146 | 00147    | 00147 |
| P00000 | EXIT.    | 00212    |       |          |       |
| P00003 | FORMAT.  |          |       |          |       |
| P00013 | FF00001. | 00157    |       |          |       |
| P00017 | FF00002. | 00161    |       |          |       |
| P00021 | FF00003. | 00163    |       |          |       |
| P00022 | FF00004. | 00165    |       |          |       |
| P00026 | FF00005. | 00167    |       |          |       |
| P00030 | FF00006. | 00171    |       |          |       |
| P00031 | FF00007. | 00173    |       |          |       |
| P00123 | FF00010. | 00175    |       |          |       |
| P00126 | FF00011. | 00177    |       |          |       |
| P00130 | FF00012. | 00201    |       |          |       |
| P00131 | FF00013. | 00203    |       |          |       |
| P00223 | GETPL.   | 00152    |       |          |       |
| P00213 | GETPU.   | 00155    |       |          |       |
| P00112 | GG00000. | 00102    |       |          |       |
| P00145 | INITIAL. | 00012    |       |          |       |
| P00036 | .1       | 00035    |       |          |       |
| P00016 | .100001  |          |       |          |       |
| P00022 | .100002  | 00015    |       |          |       |
| P00025 | .100003  |          |       |          |       |
| P00031 | .100004  | 00024    |       |          |       |
| P00126 | .100005  |          |       |          |       |
| P00131 | .100006  | 00125    |       |          |       |
| P00136 | .11      |          |       |          |       |
| P00041 | .2       | 00034    | 00135 | 00141    |       |
| P00065 | .3       |          |       |          |       |
| P00070 | .4       | 00064    |       |          |       |
| P00072 | .5       |          |       |          |       |
| P00075 | .6       | 00071    |       |          |       |
| P00224 | ERASER.  | 00077    |       |          |       |
| P00003 | .10      | 00105    |       |          |       |
| P00241 | LAT      | 00101    |       |          |       |
| P00007 | LATS     | 00007    |       |          |       |
| P00242 | LES      | 00043    | 00100 | 00137    |       |
| P00243 | LEM      | 00033    | 00133 |          |       |
| P00117 | LONS     | 00117    |       |          |       |
| P00244 | LSEC     | 00063    |       |          |       |
| P00245 | MIN      | 00053    | 00070 | 00073    | 00076 |
| X00004 | NOBLANK  | 00112    |       |          |       |
| P00205 | PF00002. | 00156    |       |          |       |
| X00001 | Q1010100 | 00042    |       |          |       |
| X00003 | Q8001CT. | 00000    | 00052 | 00062    |       |
|        |          |          | 00010 | 00120    |       |

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LATS

X00006 QNSINGL.  
X00002 THEND.  
P00142 VALUE.  
00071 SYMBOLS

00143  
00110  
00105

00114 00115 00211

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```

CSUBR      FUNCTION NOBLANK(M)
            NOBLANK = 22HART1 *****
            DIMENSION IB(8),MASK(8)
            DATA (MASK = 77000000000000000000B,77000000000000000000B,
            *770000000000B,77000000B,7700000B,770000B,77000B,77B)
            DATA (IB=60000000000000000000B, 60600000000000000000B, ETC.)
            DATA (IFIRST = 1)
            GO TO (4,5) IFIRST
            4 IFIRST = 2
              IBLANK = 1H
              DO 1 I = 1,8
                IB(I) = IBLANK.AND.MASK(I)
              1 CONTINUE
            5 DO 3 I = 1,8
              ITEMP = M.AND. MASK(I)
              IF (ITEMP.EQ. IB(I)) 2,6
            2 M = M.AND. .NOT.MASK(I)
            3 CONTINUE
            6 NOBLANK = M
              RETURN
            END

```

1000  
11000  
12000  
13000  
14000  
15000  
16000  
17000  
18000  
19000  
20000





5.475 NOBLANK

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|                 |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|
| P00066 REGIN.   | 00110 | 00117 | 00123 |       |       |       |
| P00001 DICT.    | 00027 | 00071 | 00072 |       |       |       |
| P00111 ENDING.  | 00030 | 00064 | 00066 | 00067 | 00067 | 00070 |
| P00000 EXIT.    | 00115 |       |       |       |       |       |
| P00024 FORMAT.  | 00036 |       |       |       |       |       |
| P00047 FP00001. | 00100 | 00101 |       |       |       |       |
| P00054 FP00002. | 00102 | 00103 |       |       |       |       |
| P00056 FP00003. | 00106 | 00107 |       |       |       |       |
| P00062 FP00004. | 00104 | 00105 |       |       |       |       |
| P00126 GETPL.   | 00073 |       |       |       |       |       |
| P00116 GETPU.   | 00076 | 00122 |       |       |       |       |
| P00127 I        | 00037 | 00040 | 00046 | 00050 | 00055 | 00060 |
| P00003 I8       | 00043 | 00052 |       |       |       |       |
| P00130 IBLANK   | 00036 | 00041 |       |       |       |       |
| P00023 IFIRST   | 00031 | 00035 |       |       |       |       |
| P00131 I6T0.    | 00032 |       |       |       |       |       |
| P00066 INITIAL. | 00030 |       |       |       |       |       |
| P00132 ITEMP    | 00052 |       |       |       |       |       |
| P00044 .1       |       |       |       |       |       |       |
| P00054 .2       |       |       |       |       |       |       |
| P00060 .3       |       |       |       |       |       |       |
| P00034 .4       | 00033 |       |       |       |       |       |
| P00045 .5       | 00033 |       |       |       |       |       |
| P00062 .6       | 00053 |       |       |       |       |       |
| P00024 .100000  | 00036 |       |       |       |       |       |
| P00024 M        | 00047 |       |       |       |       |       |
| P00013 MASK     | 00023 | 00054 | 00057 | 00062 |       |       |
| P00025 NOBLANK  | 00025 | 00042 | 00051 | 00056 |       |       |
| P00110 PF00002. | 00077 |       |       |       |       |       |
| X00001 Q80DICT. | 00000 | 00026 |       |       |       |       |
| P00065 VALUE.   | 00063 | 00114 |       |       |       |       |
| P00041 *SU0001. | 00044 |       |       |       |       |       |
| P00047 *SU0002. | 00061 |       |       |       |       |       |
| 00041 SYMBOLS   |       |       |       |       |       |       |

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FTNS.5

```

FUNCTION NOFFSYS(IT)
  CSUBR NOFFSYS 20 OCT70 *****
  C      IT IS PLANE TYPE *****
  CUSE MASTER 20 OCT70 *****
  COMMON/MASTER/IDATE,IDENTNO,ISIDE,NRPT,NCORR,NDPEN,NRECOVER,
  1,NREF,NBNDRY,NREG,NTYPE,NGROUP,INTOTBASE,NPAYLOAD,NASMTYPE,NMMDTYPE
  2,NTANKBAS,NCOMPLEX,NC,ASS,NALERT,NTGTS,NCORTYPE *****
  CEND MASTER *****
  CUSE OFFSYS 20 OCT70 *****
  COMMON/OFFSYS/MASKC(100),INTYP(100),IPOTYP(100),ICOUNT(100),NT *****
  CEND OFFSYS *****
  CUSE PAYLOAD 20 OCT70 *****
  COMMON/PAYLOAD/NOBOMB1(40),IWH01(40),NOBOMB2(40),IWH02(40)
  1,NASM(40),IASM(40),NCM(40),NDECCYS(40),NMADECYS(40),IMIRY(40) *****
  CEND PAYLOAD *****
  CUSE PAYLOAD2 20 OCT70 *****
  COMMON/PAYLOAD2/MASK(40) *****
  CEND PAYLOAD2 *****
  CUSE STUB 1MART1 *****
  COMMON/STUB/LHTYPE,LCCLASS,LSIDE,ML0W(2),MHI(2),G1,G2,G3,LPAYLOAD
  1,LPGTYPE,LBASEID,LFUNC *****
  CEND STUB *****
  DATA(IISHT=1)
  IF(IISHT)5,15
  5 ISHOT=0
  C      INITIALIZATION
  GO TO 1=1,NPAYLOAD
  10 MASK(I)=100000000*NOBOMB1(I)+1000000*IWH01(I)+100000*NOBOMB2(I)
  * 1000*IWH02(I)+100*NASM(I)+IASM(I)
  NT=0
  C      FORM FINAL MASK
  15 MSK = 100*MASK(LPAYLOAD)+IT
  C      LOCK FOR MATCH
  DO 20 J=1,NT
  IF(MSK.EQ.MASKC(J))60,20
  20 CONTINUE
  C      STEP COUNT
  NT=NT+1
  IF(NT.GT.100)40,30
  C      STORE MASK
  MASKC(NT)=MSK
  C      INTYP(NT)=LHTYPE
  IPGTY(NT)=LPGTYPE
  ICOUNT(NT)=ICOUNT(NT)+1
  NOFFSYS = NOBLANK(NT)
  RETURN
  40 PRINT 50
  50 FORMAT(IX,42HNO OF OFFENSIVE SYSTEMS EXCEEDS TABLE SIZE)
  NOFFSYS = 1H
  GO TO 70
  60 NOFFSYS = NOBLANK(J)
  ICOUNT(J)=ICOUNT(J)+1
  70 RETURN
  END

```

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IDENT NOFFSYS

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

00202  
00017

NOFFSYS

MASTER  
OFFSYS 00026  
PAYLOAD 00621  
PAYLOAD2 00620  
STUB 00050  
00016

EXTERNAL SYMBOLS

THEND.  
CREDIT.  
KNOBANK  
STH.

2760

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|        |          |       |       |       |       |       |       |       |
|--------|----------|-------|-------|-------|-------|-------|-------|-------|
| P00137 | BEGIN.   | 00153 | 00162 | 00166 |       |       |       |       |
| P00176 | COUNT.   | 00032 | 00033 |       |       |       |       |       |
| P00004 | CRFMT.   | 00124 |       |       |       |       |       |       |
| P00001 | DICT.    | 00021 | 00112 | 00120 | 00123 | 00127 | 00142 | 00143 |
| P00154 | ENDING.  | 00022 | 00115 | 00135 | 00137 | 00140 | 00140 | 00141 |
| P00000 | EXIT.    | 00160 |       |       |       |       |       |       |
| P00004 | FORMAT.  | 00124 |       |       |       |       |       |       |
| P00062 | FP00001. | 00151 | 00152 |       |       |       |       |       |
| C00007 | G1       |       |       |       |       |       |       |       |
| C00010 | G2       |       |       |       |       |       |       |       |
| C00011 | G3       |       |       |       |       |       |       |       |
| P00171 | GETPL.   | 00144 |       |       |       |       |       |       |
| P00161 | GETPU.   | 00147 | 00165 |       |       |       |       |       |
| P00124 | GG00000. | 00116 |       |       |       |       |       |       |
| P00177 | I        | 00027 | 00032 |       |       |       |       |       |
| C00310 | IASM     | 00052 |       |       |       |       |       |       |
| C00454 | ICOUNT   | 00107 | 00132 | 00133 | 00134 |       |       |       |
| C00001 | IDENTNO  |       |       |       |       |       |       |       |
| C00000 | IMDATE   |       |       |       |       |       |       |       |
| C00144 | INTYP    | 00104 | 00105 |       |       |       |       |       |
| C00550 | IMRV     |       |       |       |       |       |       |       |
| P00137 | INITIAL. | 00022 |       |       |       |       |       |       |
| C00310 | IP6TYP   | 00106 | 00107 |       |       |       |       |       |
| P00003 | ISMOT    | 00023 | 00026 |       |       |       |       |       |
| C00002 | ISIDE    |       |       |       |       |       |       |       |
| P00004 | IT       | 00063 |       |       |       |       |       |       |
| C00050 | IWMD1    | 00037 | 00040 |       |       |       |       |       |
| C00170 | IWMD2    | 00045 | 00046 |       |       |       |       |       |
| P00034 | .10      |       |       |       |       |       |       |       |
| P00060 | .15      | 00024 |       |       |       |       |       |       |
| P00072 | .20      | 00070 |       |       |       |       |       |       |
| P00101 | .30      | 00077 | 00100 |       |       |       |       |       |
| P00116 | .40      | 00100 |       |       |       |       |       |       |
| P00025 | .5       | 00024 |       |       |       |       |       |       |
| P00126 | .60      | 00071 |       |       |       |       |       |       |
| P00135 | .70      | 00125 |       |       |       |       |       |       |
| P00172 | .ERASER. | 00036 |       |       |       |       |       |       |
| P00016 | .10000   | 00124 |       |       |       |       |       |       |
| P00004 | .50      | 00121 |       |       |       |       |       |       |
| P00200 | J        | 00065 | 00072 | 00130 | 00132 |       |       |       |
| X00003 | KN0BLANK | 00111 |       |       |       |       |       |       |
| C00014 | LBASEID  |       |       |       |       |       |       |       |
| C00001 | LCLASS   |       |       |       |       |       |       |       |
| C00015 | LFUNC    |       |       |       |       |       |       |       |
| C00000 | LHYPE    | 00103 | 00104 |       |       |       |       |       |
| C00012 | LPAYLCAO | 00060 | 00061 |       |       |       |       |       |
| C00013 | LPGTTYPE | 00105 | 00106 |       |       |       |       |       |
| C00002 | LSIDE    |       |       |       |       |       |       |       |
| C00000 | MASK     | 00053 | 00054 | 00061 | 00062 |       |       |       |
| C00000 | MASKO    | 00067 | 00070 | 00103 |       |       |       |       |
| C00005 | MHI      |       |       |       |       |       |       |       |
| C00003 | MLOW     |       |       |       |       |       |       |       |
| P00201 | MSK      | 00064 | 00066 | 00101 |       |       |       |       |
| C00500 | NADECOYS |       |       |       |       |       |       |       |

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CO0023 NALERT  
CO0240 NASH  
CO0016 NASMTYPE  
CO0010 NBNDK7  
CO0022 NCLASS  
CO0360 NCM  
CO0021 NCOMPLEX  
CO0004 NCJRR  
CO0025 NCORTYPE  
CO0430 NDECCYS  
CO0005 NDREN  
CO0013 NGROUP  
CO0000 NC80MB1  
CO0120 NC80MB2  
CO0017 NFFSYS  
CO0015 NPAYLOAD  
CO0006 NRECOVER  
CO0007 NREF  
CO0011 NREG  
CO0003 NRT2T  
CO0620 NT  
CO0020 NTANKBAS  
CO0024 NTGTS  
CO0014 NTOTBASE  
CO0012 NTYPE  
CO0017 NWDTYPE  
PO0153 PF00002.  
X00002 Q8001C.  
X00004 STM.  
X00001 THEND.  
PO0056 TS00001.  
PO0073 TS00002.  
PO0136 VALUE.  
PO0034 WS00001.  
PO0066 WS00002.  
00131 SYMBOLS

00050 00051

00035 00035  
00042 00043  
00017 00017  
00027 00030

00056 00057 00073 00073 00075 00076 00076 00102 00102 00113

00150 00020  
00000 00000  
00117 00117  
00122 00122  
00031 00031  
00065 00065  
00114 00114  
00055 00055  
00074 00074

00125 00131 00157

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```

CSUBR      FUNCTION NOP(I)
C           NOP      22MART1 *****
C           FINDS OPERATION CODE ASSOCIATED WITH EVENT TYPE I *****
CUSE        TAB      20 OCT7C *****
C           COMMON/TAB/ITAB(21),NOPSHOT *****
C           TAB *****
C           NOPSHOT=3 FOR DOG LEG 3; NOPSHOT=4 FOR DOGLEG 4; OTHERWISE 2=RC
C           -DATA ITAB = 7,0,1,0,2,0,0,0,10,10,0,38,40,14,6,8,13,3,3,3,3
C           MODE      20 OCT7J *****
C           COMMON/MODE/MODE *****
C           MODE *****
C           EVENTS 18-21 ARE DOGLEG-3 CHANGED TO DOGLEG-4,
C           AFTER CORRIDOR ORIGIN
C           IF(NOPSHOT)4,6
C           4 DO 5 J=18,21
C           5 ITAB(J)=NOPSHOT
C           NOPSHOT=0
C           6 CONTINUE
C           NC = ITAB(1-1)
C           NOP = KNCGLANK(NC)
C           IF(I.EQ.10)10,15
C           10 MODE = 4
C           RETURN
C           15 IF(I.EQ.18)20,25
C           20 MODE = 1
C           25 RETURN
C           END

```

1000  
35000  
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10000  
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12000  
13000  
14000  
15000  
16000  
17000  
18000  
19000  
20000  
21000  
22000

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NOP

5.4TS

IDENT NOP

00102  
00003PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMESTAB  
MODE00026  
00001EXTERNAL SYMBOLS  
08651CT.  
KN09LANK



5.4TS

NOP

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P00041 BEGIN.  
P00001 OIST.  
P00062 ENDING.  
P00000 EXIT.  
P00020 P00001.  
P00027 P00002.  
P00033 P00003.  
P00077 GETPL.  
P00067 GETPU.  
P00003 I  
P00041 INITIAL.  
C00000 IT48  
P00031 .10  
P00033 .15  
P00035 .20  
P00037 .25  
P00011 .4  
P00014 .5  
P00020 .6  
P00100 J  
X00002 KNCBLANK  
C00000 MODE  
P00101 NO  
P00003 NOP  
C00025 NOPSHOT  
P00061 P00002.  
X00001 QSDICT.  
P00040 VALUE.  
P00014 W00001.  
00035 SYMBOLS

00061  
00005  
00006  
00056  
00053  
00055  
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00046  
00051  
00020  
00006  
00003  
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00073  
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00015  
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00014  
00014  
00004  
00065

J0017

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```

CSUBR      FUNCTION NPLNETYP(I)
C          NPLNETYP IMART1 *****
C          DETERMINES MISSILE, BOMBER, OR TANKER TYPE FOR LTYPE = I *****
CUSE       STUB IMART1 *****
C          COMMON/STUB/LHTYPE,LCCLASS,LSIDE,MLOW(2),MH1(2),G1,G2,G3,LPAYLOAD *****
C          1,LPGTYPE,LBASEID,LFUNC *****
CEND       STUB *****
CUSE       CUMNO IMART1 *****
C          COMMON/CUMNO/ICUMNO(15) *****
CEND       CUMNO *****
          J = LCLASS - 1
          IF(J) 10,10,20
10 NPLNETYP = 1
          RETURN
20 NPLNETYP = 1 + ICUMNO(J)
          RETURN
          END
1000
36000
2000
3000
1000
2000
3000
4000
1000
4000
5000
6000
7000
8000
9000
10000
11000

```

5.475 NPLNETYP

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

NPLNETYP

STUB

CUMNO

EXTERNAL SYMBOLS

088DICT.

IDENT

00062

00003

00016

00017

NPLNETYP

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# 5.475 MPLNETYP

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J

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|                 |       |       |       |
|-----------------|-------|-------|-------|
| P00024 REGIN.   | 00042 | 00051 | 00055 |
| P00001 DICT.    | 00005 | 00027 | 00030 |
| P00043 ENDING.  | 00006 | 00015 | 00022 |
| P00000 EXIT.    | 00047 |       |       |
| P00013 P00001.  | 00036 | 00037 |       |
| P00016 P00002.  | 00040 | 00041 |       |
| C00007 G1       |       |       |       |
| C00010 G2       |       |       |       |
| C00011 G3       |       |       |       |
| P00060 GETPL.   | 00031 |       |       |
| P00050 GETPU.   | 00034 | 00054 |       |
| P00003 I        | 00013 | 00016 |       |
| C00000 ICUMNC   | 00020 | 00020 |       |
| P00024 INITIAL. | 00006 |       |       |
| P00013 .10      | 00011 | 00012 |       |
| P00016 .20      | 00012 |       |       |
| P00061 J        | 00011 | 00017 |       |
| C00014 LBASEID  |       |       |       |
| C00001 LCLASS   | 00007 | 00007 |       |
| C00015 LFUNC    |       |       |       |
| C00000 LHTYPE   |       |       |       |
| C00012 LRAYLCAN |       |       |       |
| C00013 LPBTTYPE |       |       |       |
| C00002 LSIDE    |       |       |       |
| C00005 MHI      |       |       |       |
| C00003 MLOW     |       |       |       |
| P00003 MPLNETYP | 00003 |       |       |
| P00042 PF00002. | 00035 |       |       |
| X00001 Q8DDICT. | 00000 | 00004 |       |
| P00023 VALUE.   | 00014 | 00021 | 00046 |
| C00036 SYMBOLS  |       |       |       |

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FTNS.5

```

CSUBR
FUNCTION NTIME(T)
  NTIME = 18MART1
  IHR = 7
  MINISO = 1.5
  MINI = 60*IHR
  IF (MINI.EQ.60) IHR = 1
  MINISO = 5*IHR
  CONTINUE
  NT = 100*IHR*MINI
  NTIME=KNORLANK(NT)
  RETURN
END

```

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37000  
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5000  
6000  
7000  
8000  
9000  
10000  
11000

S.ATS

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NTIME

IDENT

00077  
00003

PROGRAM LENGTH  
ENTRY POINTS  
EXTERNAL SYMBOLS

NTIME

Q1010100  
G80DICT.  
KNCBLANK

2770

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NTIME

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P00035 BEGIN.  
 P00031 DICT.  
 P00054 ENDING.  
 P00000 EXIT.  
 P00007 FP00001.  
 P00013 FP00002.  
 P00071 GETPL.  
 P00061 GETPU.  
 P00074 IHR.  
 P00035 INITIAL.  
 P00022 .1  
 P00025 .2  
 X00003 KNOBLANK  
 P00075 MINI  
 P00076 NT  
 P00003 NTIME  
 P00053 PF00002.  
 X00001 Q1Q1010C  
 X00002 Q000010C  
 P00003 T  
 P00034 VALUE.  
 00025 SYMBOLS

00053  
 00005  
 00006  
 00060  
 00047  
 00051  
 00042  
 00045  
 00011  
 00006  
 00021  
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 00016  
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 00010  
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```

SUBROUTINE PRNTOFFS
  CSUBR PRNTOFFS 20 OCT70 *****
  C PRINTS OFFENSIVE SYSTEM NUMBER TABLE *****
  CUSE OFFSYS 20 OCT70 *****
  COMMON/OFFSYS/MASKO(100),INTYP(100),IPGTP(100),ICOUNT(100),NT *****
  CEND OFFSYS *****
  DIMENSION ID(6),IR(6)
  DATA(ID=100000 00000,1000 00000,100 00000,100000,100000,100)
  PRINT 10
  10 FORMAT(1H1)
  PRINT 20
  20 FORMAT(45X,22HOFFENSIVE SYSTEM TABLE)
  PRINT 30
  30 FORMAT (//16X,8HPLAN GEN,4X,4HTYPE,4X,5HPLANE,3X
  1,42H-----PAYLOAD CONFIGURATION-----//16X
  2,2X,8HTYPE NO.,4X,4HNAME,5X,4HTYPE,3X,52HNSBOMB1 1WMD1 NSBOMB2
  3 1WMD2 NASH 1ASM NUMBER //)
  DO 60 I=1,NT
    IDIV=MASKO(I)
    IR(I)=IDIV/ID(J)
    DO 40 J = 1,6
  40 IDIV =XMODF(IDIV,IR(J))
  PRINT 50, IPGTP(I),INTYP(I),ZDIV,(IR(K),K=1,6),ICOUNT(I)
  50 FORMAT (17X,15,4X,AB,15,219,17,19,216,17)
  60 CONTINUE
  RETURN
  END

```



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5.4TS PRNTOFFS

PRNTOFFS

IDENT

00225

00117

00621

PRNTOFFS

OFFSYS

PROGRAM LENGTH

ENTRY POINTS

BLOCK NAMES

EXTERNAL SYMBOLS

THEND.

0800DICT.

XMODF

STH.

ONSINGL.

## 5-4TS PRNTOFFS

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P00215 BEGIN.  
 P00214 CNVRT1.  
 P00017 CREMT.  
 P00001 DICT.  
 P00217 ENDING.  
 P00000 EXIT.  
 P00017 FORMAT.  
 P00131 G600000.  
 P00137 G600001.  
 P00145 G600002.  
 P00207 G600003.  
 P00221 I  
 C00454 ICOUNT  
 P00303 ID  
 P00222 IDIV  
 C00144 INITYP  
 P00215 INITIAL.  
 C00310 IPSTYP  
 P00011 IR  
 P00157 .40  
 P00207 .60  
 P00317 .10  
 P00223 .20  
 P00032 .30  
 P00103 .50  
 P00223 J  
 P00224 K  
 C00000 MASK0  
 C00020 NT  
 P00117 PRNTOFFS  
 X00002 G60DICT.  
 X00005 G60SINGL.  
 X00004 STM.  
 X00001 THEND.  
 P00210 TS000001.  
 P00147 WS000001.  
 P00154 WS000002.  
 P00177 WS000003.  
 X00003 XN2DF  
 00047 SYMBOLS

00216  
 00172  
 00131  
 00121  
 00122  
 00220  
 00123  
 00131  
 00137  
 00145  
 00165  
 00146  
 00147  
 00203  
 00117  
 00151  
 00154  
 00173  
 00122  
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 00156  
 00126  
 00134  
 00142  
 00170  
 00152  
 00176  
 00150  
 00210  
 00117  
 00000  
 00213  
 00124  
 00127  
 00146  
 00211  
 00164  
 00202  
 00161

00173  
 00137  
 00125  
 00212  
 00175  
 00145  
 00130  
 00215  
 00200  
 00207  
 00133  
 00171  
 00202  
 00160  
 00157  
 00163  
 00174  
 00153  
 00177  
 00201  
 00150  
 00210  
 00120  
 00132  
 00135  
 00140  
 00143  
 00166  
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00144

00162

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```
SUBROUTINE VINTRFAC
COMMON /VERSION/ VERS
DATA(VERS = 849DEC71 )
ENTRY V9DEC71
ENTRY VER19DEC
ENTRY VER271
PRINT 1
1 FORMAT(41H  VERSION 9DEC71  OF PROGRAM INTRFACE //)
RETURN
END
```

5.4TS VINTRFAC

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PROGRAM LENGTH  
ENTRY POINTS

V9DEC71  
VER19DEC  
VER271  
VINTRFAC

00052  
00023  
00030  
00035  
00016

BLOCK NAMES

VERSION

00001

EXTERNAL SYMBOLS

THEND.  
0800ICT.  
STH.

IDENT

VINTRFAC

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5.4TS VINTREAC

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P00050 B-SIN.  
P00003 CRFMT.  
P00001 DICT.  
P00051 ENDING.  
P00000 EXIT.  
P00003 FCRMAT.  
P00047 G600000.  
P00050 INITIAL.  
P00003 .1  
X00002 280DICT.  
X00003 STM.  
X00001 TMENG.  
P00023 WDECTI  
P00030 VER19DEC  
P00035 VER271  
C00000 VERS  
P00016 VINTREAC  
00021 SYMBOLS

00025 00032 00037 00043 00046  
00026 00033 00040 00047

00026 00033 00040  
00017 00024 00031 00036

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```

SUBROUTINE YLDFRAC(IMH,IYLD,IFRAC,KYLD)
  CSUBR      YLDFRAC 25AUG71 *****
  CUSE      FRACYLD 25AUG71 *****
  COMMON/FRACYLD/YIELD(50),FISFRAC(50),JYIELD(50),NMPN
  TYPE INTEGER YIELD,FISFRAC
  FRACYLD *****
  PAYLOAD 20 OCT70 *****
  COMMON /PAYLOAD/NBOMB1(40),IMH1(40),NBOMB2(40),IMH2(40)
  1,NASM(40),IASM(40),NCM(40),NDECOYS(40),NADECOYS(40),IMIRV(40)
  PAYLOAD *****
  STUB      1MAR71 *****
  COMMON/STUB/LHTYPE,LCLASS,LSIDE,MLCH(2),MH1(2),G1,G2,G3,LPAYLOAD
  1,LPGTYPE,LBASEID,LFUNC
  STUB *****
  C      CREATE EQUIV YIELD IF WEAPON IS A MRV
  I = 1MH
  IF (LCLASS-1) 60,25,60
  25 IF (NBOMB1(LPAYLOAD),GT,1)5G,60
  50 FNB = NBOMB1(LPAYLOAD)
  C
  C      KYLD IS THE SCALED YIELD FOR MRV WEAPONS
  C      THE SCALED FISSION FRACTION FOR MRV WEAPONS IS DETERMINED AS
  C
  C      FFR(SCALEN) = (YIELD OF SNGL *HD) / (FFR OF SNGL *HD) * (NO OF *HDS)
  C      SCALED YIELD FOR MRV (I.E. KYLD)
  C
  C      (SOURCE = R. R. HARDIMAN NMCSSC 8221 WFR 13OCT70)
  C
  DECODE(8,40,YIELD(I))KYLD
  40 FORMAT(I8)
  KYLD = KYLD * FNB **1.5
  ENCODE(8,40,JYLD)KYLD
  IYLD=NCBLANK(JYLD)
  DECODE(3,40,FISFRAC(I)) ITEMP
  50 FOR J=1(I3)
  ITEMP = ITEMP / SQRTF(FNB) * .5
  ENCODE(3,40,IFRAC) ITEMP
  IFRAC = ITEMP * JYLD * IFRAC
  RETURN
  60 IYLD = YIELD(I)
  KYLD=JYIELD(I)
  IFRAC = FISFRAC(I)
  RETURN
  END

```

5.4TS YLDFRAC

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

YLDFRAC

FRACYLD  
PAYLOAD  
STUB

EXTERNAL SYMBOLS

THEEND.  
Q2007111  
Q1004100  
Q1010100  
Q8001010  
NOBLANK  
SORTF  
DEC.  
ENC.  
QNSINSL.

IDENT

00241  
00011

00227  
00620  
00016

YLDFRAC

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|        |           |       |  |  |  |  |  |  |  |
|--------|-----------|-------|--|--|--|--|--|--|--|
| P00040 | AN00000.  | 00034 |  |  |  |  |  |  |  |
| P00076 | AN00002.  | 00072 |  |  |  |  |  |  |  |
| P00143 | BEGIN.    | 00211 |  |  |  |  |  |  |  |
| P00142 | CNVRT1.   | 00041 |  |  |  |  |  |  |  |
| P00003 | CRFMT.    | 00045 |  |  |  |  |  |  |  |
| X00010 | DEC.      | 00036 |  |  |  |  |  |  |  |
| P00001 | DICT.     | 00013 |  |  |  |  |  |  |  |
| X00011 | ENC.      | 00123 |  |  |  |  |  |  |  |
| P00212 | ENDING.   | 00056 |  |  |  |  |  |  |  |
| P00000 | EXIT.     | 00014 |  |  |  |  |  |  |  |
| C00052 | FISFRAC   | 00215 |  |  |  |  |  |  |  |
| P00235 | FNB       | 00071 |  |  |  |  |  |  |  |
| P00003 | FORMAT.   | 00033 |  |  |  |  |  |  |  |
| P00015 | FP00001.  | 00155 |  |  |  |  |  |  |  |
| P00042 | FP00002.  | 00177 |  |  |  |  |  |  |  |
| P00052 | FP00003.  | 00201 |  |  |  |  |  |  |  |
| P00054 | FP00004.  | 00203 |  |  |  |  |  |  |  |
| P00061 | FP00005.  | 00205 |  |  |  |  |  |  |  |
| P00070 | FP00006.  | 00161 |  |  |  |  |  |  |  |
| P00120 | FP00007.  | 00174 |  |  |  |  |  |  |  |
| P00126 | FP00010.  | 00167 |  |  |  |  |  |  |  |
| P00127 | FP00011.  | 00172 |  |  |  |  |  |  |  |
| P00133 | FP00012.  | 00163 |  |  |  |  |  |  |  |
| P00135 | FP00013.  | 00207 |  |  |  |  |  |  |  |
| P00137 | FP00014.  | 00170 |  |  |  |  |  |  |  |
| C00007 | G1        |       |  |  |  |  |  |  |  |
| C00010 | G2        |       |  |  |  |  |  |  |  |
| C00011 | G3        |       |  |  |  |  |  |  |  |
| P00226 | GETPL.    | 00150 |  |  |  |  |  |  |  |
| P00216 | GETPU.    | 00153 |  |  |  |  |  |  |  |
| P00045 | GG00000.  | 00035 |  |  |  |  |  |  |  |
| P00065 | GG00001.  | 00055 |  |  |  |  |  |  |  |
| FC0103 | GG00002.  | 00073 |  |  |  |  |  |  |  |
| P00124 | GG00003.  | 00115 |  |  |  |  |  |  |  |
| P00236 | I         | 00016 |  |  |  |  |  |  |  |
| C00310 | IASM      |       |  |  |  |  |  |  |  |
| P00003 | IFRAC     | 00120 |  |  |  |  |  |  |  |
| C00350 | IMRV      |       |  |  |  |  |  |  |  |
| P00143 | INITIAL.  | 00014 |  |  |  |  |  |  |  |
| P00237 | ITCMP     | 00100 |  |  |  |  |  |  |  |
| P00003 | IWH       | 00015 |  |  |  |  |  |  |  |
| C00050 | IWHD1     |       |  |  |  |  |  |  |  |
| C00170 | IWHD2     |       |  |  |  |  |  |  |  |
| P00003 | IYLD      | 00070 |  |  |  |  |  |  |  |
| P00022 | .25       | 00020 |  |  |  |  |  |  |  |
| P00026 | .50       |       |  |  |  |  |  |  |  |
| P00131 | .60       | 00021 |  |  |  |  |  |  |  |
| P00227 | PERASTER. | 00106 |  |  |  |  |  |  |  |
| P00003 | .40       | 00040 |  |  |  |  |  |  |  |
| P00006 | .80       | 00076 |  |  |  |  |  |  |  |
| C00144 | JYIELD    | 00134 |  |  |  |  |  |  |  |
| P00240 | JYLD      | 00060 |  |  |  |  |  |  |  |
| P00003 | KYLD      | 00042 |  |  |  |  |  |  |  |
|        |           | 00052 |  |  |  |  |  |  |  |
|        |           | 00054 |  |  |  |  |  |  |  |
|        |           | 00061 |  |  |  |  |  |  |  |
|        |           | C0135 |  |  |  |  |  |  |  |



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|-----------------|-------|-------|-------|
| CO0014 LBASEID  | 00017 | 00017 |       |
| CO0001 LCLASS   |       |       |       |
| CO0015 LFUNC    |       |       |       |
| CO0000 LTYPE    |       |       |       |
| CO0012 LPAYLOAD | 00022 | 00022 | 00026 |
| CO0013 LPOTYPE  |       |       |       |
| CO0002 LSIDE    |       |       |       |
| CO0005 MNT      |       |       |       |
| CO0003 MLOW     |       |       |       |
| CO0500 NADECOYS |       |       |       |
| CO0240 NASM     |       |       |       |
| CO0360 NCM      |       |       |       |
| CO0430 NDECOYS  |       |       |       |
| X00006 NOBLANK  | 00065 | 00124 |       |
| CO0000 NOBOMB1  | 00023 | 00023 |       |
| CO0120 NOBOMB2  |       |       | 00027 |
| CO0226 NMPN     |       |       | 00027 |
| PO0157 PF00002. | 00154 |       |       |
| PO0165 PF00003. | 00160 |       |       |
| PO0175 PF00004. | 00166 |       |       |
| PO0211 PF00005. | 00176 |       |       |
| X00003 Q1004100 | 00051 |       |       |
| X00004 Q1010100 | 00053 |       |       |
| X00002 Q2907111 | 00045 | 00113 |       |
| X00005 Q800101. | 00000 | 00012 |       |
| X00012 QMSINGL. | 00141 |       |       |
| X00007 SORTF    | 00104 |       |       |
| X00001 THEND.   | 00043 | 00063 | 00101 |
| CO0000 YIELD    | 00034 | 00040 | 00122 |
| PO0011 YLDFRAC  | 00011 | 00132 | 00132 |
| 00123 SYMBOLS   |       |       |       |

```

PROGRAM TABLE
TABLE 7JUN71
*****
CSUBR CLASS AB
C SIDE AD
C INDEXC 1b
C DESIG AB
C LAT FB.4
C LONG FB.4
C CTRYLOC AB
C NAME AB
C TYPE AB
C CEP FB.4
C VULN AB
C SITE NO AB
C FUNCTION AB
C NPSITE 1b
C WDTYPEN 1b
C YIELD FB.3 (M)
C COMMON/DIRECTRY/DEF.LASTLIST,NOI,NOIN,NOIMLIST,MITNAME(500),
  IFORHAT(500),LCUE(500),DEFAULT(500),IDEFAULT(500),
  INI(500),FNI(500),FNI2(500),FNI2(500),LISTCHK(500),
  LGLOR(500),LISTVALS(2000)
C EQUIVALENCE(MINF1),(M2,F2),(DEFAULT,IDEFAULT)
C TYPE INTEGER MITNAME
C COMMON/PROCESS/1,NV,NC,INITER(100),VALUE(500),DEF(500),LGLOR(500)
C TYPE INTEGER VALUE
C TYPE LOGICAL DEF,LGLOR
C COMMON/EDITERR/1,ISITERA
C DIMENSION VALD(500),MYLD(500),OFFRAC(50)
C EQUIVALENCE(VALUE,VALD)
C COMMON/11/1,ADIAN(10),TAD=IS(10),TANVER(800),TARBAS(10),
  1TARBER(100)
C TYPE INTEGER 1ADIAN,TADNIS,1ADVER,TARBAS,1ASWEP
C COMMON/IDENT/1,IDENT
C COMMON/1P/1P
C COMMON/ACPL/1,ACPLINT
C DIMENSION VEH(100)
C TYPE LOGICAL VEH
C TYPE INTEGER CUTAPE
C TYPE INTEGER CUTAP2,CUTAP3
C TYPE INTEGER SIZE
C M1TARGET = 0,M1TARGET 3 CUTAPE = 3
C M1VEHIC = 0,M1VEHIC 3 CUTAPE = 2
CUTAP3 = 4
C M1 = 1M1
C IJ = 1MC
C M1IND CUTAPE
C READ TO 3 SIDE
C3 FORMAT (A1)
C VALUE = 1M1 3 M1RED = 1MC
C IF (SIDE .EQ. M1GLOE) 11, 12
C11 VALUE = 1M2 3 M1RED = 1M1
C12 M1INBASE = 0,M1INBASE
C1INBASE = 0,M1INBASE
C 1X = 1PX

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```

VALASH = 14/
MYEAPON = AMFL*EAPON
MYIDENIT = AMTABLE
NOMPRIV = 1
CALL INITAPE
MYIDENIT = AMINDEXNIS
CALL INITIDUIT(1)
HEADS UTRECTRY
PRINT 27, ( ATINAME(1), I = 1, IDEF)
27 FORMAT(1H,1440)
CALL IMPITEA
DO 28 I = 1,400
28 JFH(I) = .FALSE.
ICLAS = ILE(5HCLASS,ATTNAME,IDEF)
IYPE = ILE(4HTYPE,ATTNAME,IDEF)
ISIDE = ILE(4HSIDE,ATTNAME,IDEF)
INDEX = ILE(7HINDEX,ATTNAME,IDEF)
ISISIG = ILE(5HISIG,ATTNAME,IDEF)
ILAT = ILE(3HILAT,ATTNAME,IDEF)
ICOM = ILE(4HCOM,ATTNAME,IDEF)
ICTRY = ILE(4HICTRYLOC,ATTNAME,IDEF)
IAME = ILE(4HNAME,ATTNAME,IDEF)
ICEP = ILE(3HCEP,ATTNAME,IDEF)
IVULN = ILE(4HVULN,ATTNAME,IDEF)
ISITENC = ILE(5HSITE,ATTNAME,IDEF)
IFUNC = ILE(4HFUNCTION,ATTNAME,IDEF)
IMPSITE = ILE(7HMPSTIE,ATTNAME,IDEF)
IMDT = ILE(7HMDT,ATTNAME,IDEF)
IVLO = ILE(5HIVLO,ATTNAME,IDEF)
IYPTIT = ILE(5HIYPT,ATTNAME,IDEF)
ISYR = ILE(4HSYR,ATTNAME,IDEF)
ICALENT = ILE(7HCALENT,ATTNAME,IDEF)
ICAT = ILE(7HCATCODE,ATTNAME,IDEF)
ICAJ = ILE(5HCAJ,ATTNAME,IDEF)
ITASK = ILE(4HTASK,ATTNAME,IDEF)
ICOM = ILE(4HCOM,ATTNAME,IDEF)
IFFRAC = ILE(5HFFRAC,ATTNAME,IDEF)
ICALENT = ILE(7HCALENT,ATTNAME,IDEF)
ISIT = ILE(5HSITE,ATTNAME,IDEF)
ICLAS = ILE(5HCLASS,ATTNAME,IDEF)
ISAVTY = 0
NOMBAS = 0
NOMWEAP = 0
NOMVEH = 0
NOMTAPS = 0
NOMISSHS = 0
ITP = 0
MYIDENIT = AMSCATCH
CALL SETWRITE
ITP = 0
MYIDENIT = AMSCATCH
CALL SETWRITE
29 NAMESIDE = VALUE(ISIDE)
INDEXIS = VALUE(IDEISIG)
INDEXNUM = VALUE(INDEX)
ILAT = VALUE(ILAT)

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XLONG = VALU(XLONG)
NAMEST = VALUE(INAME)
NCTRYLOC = VALUE(ICTRY)
C
  CONVERT LAT AND LONG
  CALL HELP (ALAT,LAT,1)
  CALL HELP (ALONG,LON,2)
  IF ( NAMEST.EQ. SLUR) GO, 30
C
  IS INDEXING SET, G
  30 IF (INDEXNUM.GT.0) 31,1,0
C
  ENTER DATA IN TABLE TARGET
  31 NMTARS = NMTARS + 1
  NCAT = VALUE(ICAT)
  MAJ = VALUE(IMAJ)
  TASK = VALUE(ITASK)
  NCOMPLEX = VALUE(ICOM)
C
  ENCODE AND OUTPUT FOR TABLE TARGET
  20 FORMAT (9M,10EN = ,110)
  34 EXCODE(1,32,TABTAR)NITARGET,NLUE,NMTARS,NDESIG,LAT,LONG,NAMESTGT
  1,NCAT, NCITLOC, MAJ, TASK,INDEXNUM, NCOMPLEX
  32 FORMAT (M8,A1,10,1X,M8,1X,M7,M8,1X,M2,A6,1X,A2,1X,
  115,1X,13)
C
  WRITE TARGET TABLE ENTRY ON TAPE
  40 IEOUTYPE, 33) TABTAR
  33 FORMAT (1,40)
  GO TO 100
C
  40 CONTINUE
C
  CLASS=CODEMISILE*ANHEAD*SM, OR TANKER
  41 NCLAS = VALUE(ICLAS)
  NAMESTPE = VALUE(IITYPE)
  ICLASS = VALUE(NICLAS)
  ISITE = VALUE(NSITE)
  I = VALUE(IITYPE)
C
  I IS SET EQUAL TO STEVES IITYPE
  70 IF (ICLAS = 1) 70, 42, 70
  70 IF (ICLAS = 2) 71, 72, 71
  72 IEOUTYPE = 1
  GO TO 54
  42 NUMISSRS = NUMISSRS + 1
  43 IF (ISITE = 1) 46, 43, 40
  43 ISAVTY = 1
  GO TO 47
  40 I = ISAVTY
  47 CONTINUE
  44 NMPSTGH = VALUE(INMPSTGH)
  401 NVULN = VALUE(INVULN)
C
  ISALVDC=1
  DECODE NVULN AND TEST FIRST TWO DIGITS
  47 EXCODE( 8,47,NVULN) NVUL
  47 FORMAT(2)
  48 NVUL = IMS
  48 NALERT = VALUE(INALERT)
  50 IF (NALERT.EQ. NMPSTGH) 53, 50
  50 ISALVC = 2
  GO TO 53

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1-C CALL NEXT ITEM
  GO TO (29, 110) ISWTERM
71 IF (ICLASS - 3) 75, 73, 75
73 NTANK = JHX
  GO TO 61
75 TEST FOR WEAPON
75 IF (INCLAS = EQ, 7HWARHEAD) 84, 81
81 IF (INCLAS = EQ, 3HASM) 82, 100
  C 82 IWEAP = 1H1
    GO TO 85
  C 84 IWEAP = 1H3
    WAREHEAD
    IFFRAC = VALU(IFFRAC)
    IFFRAC = IFFRAC * 100
    IF (IFFRAC - 100) 85, 85, 85
850 ENCODE (3, 851, NTEMP) 12, IFFRAC
851 FORMAT (A1, I2)
  C 85 IPIT = NUMWEAP * 10 + 1
    NUMWEAP = NUMWEAP + 1
    IF (NUMWEAP > 61, 70) 86, 88
  C 86 NUMWEAP = 7
    PRINT 87
87 FORMAT (29H NUMBER OF WEAPONS EXCEEDS 70)
  GO TO 103
88 NWHDTYPN = VALUE (IWHDT)
  C 890 INCLAS = EQ, 7HWARHEAD) 890, 881
  C 890 CONVERT YIELD FROM MT TO KI
890 NYIELD = VALU (IYLD) * 1000
  NYLD (NWHDTYPN) = NYIELD
  IFFRAC (NWHDTYPN) = IFFRAC
  C 90 TO 882
881 NYIELD = NYLD (NWHDTYPN)
  IFFRAC = IFFRAC (NWHDTYPN)
  C 882 ENCODE (89, 89, IHWEP (IPIT)) 41, WEAPON, NUMWEAP, NWHDTYPN, IWEAP,
  NYIELD, IFFRAC
89 FORMAT (A8, A1, 15, I4, I4, I7, I6, A3)
  GO TO 100
  C 110 MERGE AND PRINT TABLES
  C 110 ENTIRE DATA BASE TAPE HAS BEEN READ
  C 110 WRITE TABLE VEHICLE ON OUTPUT TAPE
  C 110 GO 111 I=1, NUMVEH
  C 113 IVEG = (I-1) * 10 + 1
  IEND = IVEG + 9
  C 111 CONTINUE
  WRITE (CUTAPE, 33) (TARVEH (J), J = IVEG, IEND)
  ITP = CUTAR2
  CALL TERMTAPE
  ITP = CUTAR3
  CALL TERMTAPE
  PRINT 25, NUMIANS, NUMVEH, NUMWEAP, NUMISSBS, NUMBAS
  C 25 FORMAT (1H, 5110)
  C 120 I = 1, NUMWEAP
  WRITE TABLE WEAPON ON OUTPUT TAPE
  C 120 I = 1, NUMWEAP

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122 IREG = (I-1) * 10 + 1
    IEND = IREG * 9
    WRITE(OUTAPE,33) (TABW(J), J = IREG, IEND)
120 CONTINUE
    ICHEK = 120
    PRINT 26, ICHEK
    WRITE TABLE MISSILE BASE ON OUTPUT TAPE
    C
131 CONTINUE
133 ITP = OUTAP2
    MYIDENT = BMSCKATCH
    CALL SETREAU
    DO 133 I = 1, NUMMISSDS
    CALL ROADWAY(TABMIS, I)
    WRITE(OUTAPE,33) TABMIS
130 CONTINUE
    CALL TERMATAPE
    ICHEK = 130
    PRINT 26, ICHEK
    C 139 TABLE MISSILE BASE NOW ON OUTPUT TAPE
    C
    ITP = OUTAP3
    MYIDENT = BMSCKATCH
    CALL SETREAU
    139 UC 15, I = 1, NUMBDS
    CALL ROADWAY(TABDAS, I)
    WRITE (OUTAPE,33) TABDAS
150 CONTINUE
    CALL TERMATAPE
    ICHEK = 150
    PRINT 26, ICHEK
154 END FILE OUTAPE
    REWIND OUTAPE
156 HEAD(OUTAPE,33) TABMIS
    IF (EOF, OUTAPE) GO TO 158
158 PRINT 159, (TABMIS(I), I = 1, 13)
159 FORMAT(1H 159)
    GO TO 156
160 REWIND OUTAPE
    RETURN
    END

```





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## TABLE

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PJ1344 ANOJ007.

PJ1353 ANOJ014.

PJ0604 ATTNAME

PJ2107 CEP

PJ2175 CNVRTI.

PJ3150 CMF41.

XJ0020 DEC.

CJ1133 DEF

CJ2740 DEFAULT

PJ0001 DICT.

XJ0023 EFT.

XJ0030 ENC.

PJ2070 ENDING.

PJ0000 EXIT.

PJ2110 FFRATIO

CJ3724 FN1

CJ4710 FN2

PJ0150 FORMAT.

PJ0525 G600000.

PJ0573 G600001.

PJ1133 G600002.

PJ1146 G600003.

PJ1225 G600004.

PJ1267 G600005.

PJ1335 G600006.

PJ1360 G600007.

PJ1371 G600010.

PJ1443 G600011.

PJ1515 G600012.

PJ1535 G600013.

PJ1576 G600014.

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J1357

J0564

J0663

J0752

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J1720

J2000

J2050

J2022

J1110

J2067

J2076

J1476

J0502

J0540

J0642

J0731

J1030

J1473

J0515

J0555

J1107

J1134

J1215

J1242

J1327

J1341

J1361

J1421

J1504

J1527

J1560

J0564

J0671

J0752

J1315

J0565

J1125

J1255

J1352

J1434

J1571

J1753

J0573

J1535

J0606

J0675

J0764

J1316

J1114

J1127

J1257

J1353

J1435

J1572

J1711

J2016

J1197

J1576

J0613

J0702

J0771

J1115

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J0620

J0707

J0776

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## TABLE

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|                 |  |       |       |
|-----------------|--|-------|-------|
| P01303 .55      |  |       |       |
| P01316 .56      |  |       |       |
| P01373 .61      |  | 01312 |       |
| P01371 .62      |  | 01462 |       |
| P01401 .65      |  | 01302 | 01360 |
| P01403 .650     |  | 01377 | 01400 |
| P01405 .651     |  |       |       |
| P01407 .652     |  | 01402 |       |
| P01411 .653     |  |       |       |
| P01413 .654     |  | 01406 |       |
| P01415 .655     |  |       |       |
| P01417 .67      |  | 01412 |       |
| P01421 .675     |  | 01404 |       |
| P01460 .70      |  |       | 01414 |
| P01455 .71      |  | 01195 |       |
| P01171 .72      |  | 01170 |       |
| P01461 .73      |  | 01167 |       |
| P01463 .75      |  | 01457 |       |
| P01466 .81      |  | 01460 |       |
| P01471 .82      |  | 01404 |       |
| P01472 .84      |  | 01470 |       |
| P01504 .85      |  | 01465 |       |
| P01517 .85      |  | 01503 |       |
| P01525 .86      |  | 01472 | 01503 |
| P01535 .88      |  |       |       |
| P01543 .880     |  | 01524 | 01524 |
| P01553 .881     |  |       |       |
| P01556 .882     |  | 01542 |       |
| P02477 .884SEH. |  | 01552 |       |
| P00162 .88      |  | 01632 |       |
| P00155 .88000   |  | 00520 |       |
| P00157 .88001   |  | 00502 |       |
| P00160 .88002   |  | 00505 |       |
| P00161 .88003   |  | 00510 |       |
| P00165 .88004   |  | 00511 |       |
| P00169 .88005   |  | 00525 |       |
| P00167 .88006   |  | 00527 |       |
| P00170 .88007   |  | 00520 |       |
| P00171 .88008   |  | 00532 |       |
| P00172 .88009   |  | 00534 |       |
| P00173 .88010   |  | 00535 |       |
| P00174 .88011   |  | 00537 |       |
| P00175 .88012   |  | 00540 |       |
| P00176 .88013   |  | 00541 |       |
| P00177 .88014   |  | 00542 |       |
| P00200 .88015   |  | 00543 |       |
| P00206 .88016   |  | 00550 |       |
| P00207 .88017   |  | 00506 |       |
| P00210 .88018   |  | 00513 |       |
| P00211 .88019   |  | 00520 |       |
| P00212 .88020   |  | 00525 |       |
| P00213 .88021   |  | 00532 |       |
| P00214 .88022   |  | 00537 |       |
|                 |  | 00544 |       |

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| P02.71 CUTAP3    | 00507 | 01026 | 01443 | 01633 | 01756 |       |       |       |       |       |
| P02.73 CUTAPE    | 00504 | 00512 | 01133 | 01605 | 01601 |       |       |       |       |       |
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| X00.06 08001000  | 00000 | 00476 |       |       |       |       |       |       |       |       |
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| X00.27 STM.      | 00556 |       | 01330 |       |       |       |       |       |       |       |
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